INTERSTATE MEDICAL JOURNAL.

VOL. IX. JULY, 1902. NO. 7.

ORIGINAL ARTICLES.

TREATMENT OF INFECTIOUS SUPPURATIVE PROCESSES IN THE PERITONEAL CAVITY.

BY PROFESSOR L. REHN, of Frankfort, Germany.

It is my object, without again going into the controversy in the treatment of appendicitis, to settle this, in general, most important question for the surgeon and the gynecologist: To what extent can the pus processes in the peritoneal cavity, in their different phases, be treated surgically? And what general rules are to be applied in operating? The limits of surgical knowledge on this subject should not be considered as reached, but the sad fact of unnumbered offerings yearly to the disease mentioned, call forth efforts for better results.

Taking into consideration the great strides which abdominal surgery shows it has taken in the last few years, by which operations have been made common which formerly were considered inexecutable, the hope is justified that the pus processes in the abdomen will be treated with the same sure results.

In the meantime the views upon this subject are widely opposed to each other. Entirely contrary to this dissension, surgeons are universally agreed on the different subjects which lie in close relation to this one: Abscesses adjacent to the peritoneum are opened by every surgeon; in penetrating wounds of the abdomen, immediate laparotomy, being a necessity, is universally known, as also in perforation of the stomach and intestinal ulceration.

In wounds of the abdomen, produced by a blunt instrument, one is with attentive observation of the patient ready to operate the moment that threatening symptoms suggest a visceral injury. Yes, even threatened perforation of the stomach or intestinal ulceration are operated upon, and these are the most grateful cases for operation.

Why treat them so? Because we do not wish to submit our patient to a mere blind accident, but to procure for him the most promising chances for recovery. Although it may be that we operate upon one case that might have been cured without.

The fact that a number of such cases can recover without operation must not keep us from resorting to that treatment which cures all or the most.

The argument, indeed, renders more plain the necessity of operating in pus processes in the abdomen when the existence of an advancing peritonitis shows itself.

Now, one would think it but a short step to attack also those processes whose havoc-producing nature is not beyond all doubt.

The danger of infectious material entering into the abdomen is variable in accordance with the port of entry, depending also upon rapidity of entry, the quantity of infectious material—great or small, whether virulent or attenuated.

The tendency of the peritoneum to adhesions often is an index to the result, as experience teaches us, especially in those parts which are easily shut off (as the space behind the cecum, Douglass' cul-de-sac, subrenal and subhepatic spaces and bursa retro-omentalis). However significant the location of the process may be, no guarantee is thereby given.

At any rate, the infection is primarily restricted, and at this time operative procedures should be instituted; instead, however, the deceptive conclusion is drawn that the peritoneum, having disposed of so much infectious material, can also dispose of the balance.

A sure prognosis, however, is impossible in a process hidden from view. Here let it be pointed out that notwithstanding the attention of laity and physicians on every appendiceal case, and notwithstanding immediate internal treatment in most cases, deleterious results have increased instead of decreased.

He who has opportunity to view these results frequently on the operating table will not be able to grow in faith in the internal treatment. If the internist never contests with the surgeon the treatment of phlegmon in any locality of the body in view of the eye, then with far greater right does the much more difficult treatment of pus processes in the abdomen also belong to the surgeon.

We can at this with surety say: The mild cases can, with judicious attention and proper treatment, without operation, gradually get well. The serious ones do not.

To decide, in the beginning, whether a case before us is mild or severe and serious is impossible; consequently only early operations promise safe outcome. Early operation is my rule—only exceptional conditions ever force me to delay.

That even more advanced cases are spared by operation is a triumph for surgery, but should, however, not lead us to neglect prophylaxis—*i. e.*, early operation.

If in practice most of the cases do not come into our hands so early, but with more or less pus present in the abdomen, these, of all, should not be left to circumstances, with possibility of perforating into the intestine. But especially for the abdomen let the fundamental rule of surgery, "*ubi pus, ibi eracua*," be regarded.

Our technique is far-reaching enough for these ailments, so that it is not only allowable but of the greatest advantage.

The fear of opening the peritoneum in abscesses has two causes, namely: the bitter experiences of many surgeons, and the old dogma—great danger of infecting the peritoneum.

The latter point means a mistaking the danger of a once present peritonitis with the danger of producing it.

All experiments teach that the peritoneal cavity possesses a marked resistance to infectious material, and practical experiences agree herewith. Were this not so, then hardly one intestinal suture would hold; and what is the meaning of the so-called peritoneal irritation but the strong efforts of the peritoneum against infectious matter which has invaded the cavity?

To show where the bitter experiences come from, I give one example: An appendiceal abscess was opened extra-peritoneally, the appendix had to be sought

for whether found or not. A small tear ensued in the peritoneum and the patient died of peritonitis. Similarly can this happen in pus sacs about the kidneys.

The conclusion that opening of the peritoneum had produced peritonitis is certainly false, the incomplete and wrong method of opening it was the cause. Faulty technique produced the tear.

A correct technique is most assuredly necessary for these operations. Next, the field should be within reach, for this—a large, correctly placed incision, not considering possibility of abdominal hernia later. The adjoining gut, to the abscess, should be brought out to view, the magnitude of the abscess shall be carefully investigated; quickly acquainting ourself with this, a gentle hand and a prompt decision are necessities not to be dispensed with.

Gentle irrigation with normal saline solution (38° to 39° C.) is least harmful and the most effective remedy for removing pus from the gut. Sponging and wiping is strongly discouraged.

Evacuation of the pus is followed by freeing of the entire diseased area and removal of the diseased organ, tube, appendix or gall-bladder. In the operation for appendicitis the appendix is sought and should be removed in every case.

Then proper drainage; for this iodoform gauze should be used and best when wound around a drainage tube. When drainage extends through healthy peritoneum, for example, for counter drainage, the smooth rubber tubes are proper. The drains should reach well to the bottom of the cavity, especially in cavities easily infected, for instance, the lesser pelvis.

All drains are placed in the abdomen, either through the anterior or lateral walls. I never drain to the lumbar region and vagina only as dire necessity.

The abdominal wound is closed about the tube the same as any other laparotomy incision. It is a big mistake to think that we give the pus good drainage in leaving the abdominal wound open.

The light intestine forthwith acts as a tampon in the opening. On the contrary, it is of the greatest necessity to restore the normal intra-abdominal pressure, so that by this means the infectious materials may be carried in the direction of the drain.

The normal direction of the lymph toward the diaphragm is somewhat changed by the drain. If we have thinned the infectious material somewhat by means of the saline solution, then it will be carried away much more readily by the drain, and just this should be our endeavor.

The resorption through the diaphragm should be limited as much as possible.

For this purpose the patient should be placed in bed with the upper portion of the body high and the pelvis low. He is admonished to breathe deeply, thereby strengthening and increasing intra-abdominal pressure as the work of heart and lungs are favorably influenced.

The peritoneum, when aided in this manner, offers the operator more favorable opportunity than any other locality in the body, and acts entirely different from the pleura. The remaining clots of fibrin in the abdomen adhering to the gut disappear very rapidly, as we observe in secondary operations or post-mortems.

Just these qualities of the peritoneum for battling against infection (I refer to the large surface for attack and the tendency to encapsulate the infection), on the other hand, make a generalized infection so dangerous.

The same holds good of peritoneal resorption, by aid of which a number of germs or their products are rendered harmless in the blood while it may also bring about a poisoning of the system. Thus die many of our patients, after successful operation or cured peritonitis, in consequence of resorption of bacteria or their toxins.

Regarding after-treatment is to be said that, beginning the first day, the peristalsis is to be excited by saline enemata. By allowing a gentle inflow of saline solution, secretion is washed out of the drains. The patient should be watched over carefully.

It must also be mentioned that in these laparotomies the strictest asepsis is to be maintained, so that the healthy peritoneum may not be infected by the operator before the abscess is reached.

Following tables show what results may be attained by this method:

NO.	CURED.	DIED.
I. Localized Processes 56	55	1 (Phlegmon in Abdominal Wall, Peritoneum free.)
II. General Peritonitis 22	9	13

DIVISION OF GROUP I.

NO.	CURED.	DIED.
Appendicitis 26	26	0
Pyosalpynx 24	23	1
Localized Liver Abscess 1 and Subhepatic Abscess 2	3	0
Abscess of Mesenteric Gland 3	3	0

DIVISION OF GROUP II.

	NO.	CURED.	DIED.
Appendicitis	9	3	6 (*a*)
Pyosalpynx	13	6	7 (*b*)

(*a*) Of those, one, after recovering from peritonitis, had septic endocarditis.

(*b*) Of those, one, twelve and a half months later, had a subphrenic abscess, peritonitis, recovery.

There is still to remark that most cases of group I can be counted as belonging to the progressive type of peritonitis, as very few were localized.

Especially operations for pyosalpynx are linked with grave processes—abscesses in the pelvis, intestinal adhesions and advancing peritonitis.

Since those tables show that even advanced cases are saved by operation, how much more promising must be the results of an early operation!

THE CONTROL OF HEMORRHAGE IN THE REMOVAL OF PELVIC TUMORS.

By Herman E. Pearse, M. D., of Kansas City, Missouri.

In the removal of pelvic tumors, control of hemorrhage is the hardest problem we have to solve. It is always present. Adventitious vessels of large calibre are found in unexpected places, due to the enlargement of unimportant branches. The protection of the urinary system is a constant problem. Danger to the bladder or ureter is ever before us. Danger of laceration of a bowel is always present. But all of these are practically unvarying problems; they must always be considered. Should accident happen at any of these points, its repair can be attended to with some degree of leisure; not so with the question of hemorrhage. A tumor has been delivered, adhesions have been to some extent severed, search is being made for its other important attachments, when it is noted that every sponge is crimson and every space is filling with red blood. Like the proverbial bolt of thunder from a clear sky comes the swirling, rushing, welling of blood from the pelvis when a vessel of large size, low in the pelvis, has been opened. The operator needs all his courage, all his knowledge of anatomy and pathology, all his fertile resource gathered from years of experience and study, all his manual deftness and dexterity, ready at his instant command to cope with such an emergency, and even then he may lose the battle if he be taken unawares and has not cool courage and intelligent ability.

The best way to control hemorrhage in the removal of pelvic tumors of the female is to search out and control the vessels that are the source of hemorrhage as early as may be in the operation. Blood supply will be found to precede from two superficial sources, and from several deep sources. The first superficial source is the ovarian or deep spermatic, arising from the aorta or renal artery in the lumbar region and passing downward to the brim of the pelvis, which it reaches opposite to the upper edge of the broad ligament. This is the first artery to be secured in uterine or ovarian tumors; and generally in broad ligament cysts and intra-ligamentous growths that same rule holds good. The second superficial source of blood supply comes from the funicular and round ligament, or the superficial spermatic artery. This is unimportant in normal condition, but being given off from the anterior branch of the internal iliac or from the superior vesical, which in turn is derived from the anterior branch of the internal iliac, it offers an easy means of collateral circulation when the ovarian and the uterine are tied; its origin is but a short distance from the origin of the uterine and is from a common trunk.

The deep sources of blood supply are the uterine artery principally, and after that, enlarged branches from the sciatic, obturator and anterior branch of the internal iliac. The uterine is easily secured, after tying or clamping the ovarian, by cutting down toward the base of the broad ligament where it lies. If the operator secures the uterine artery to the inner side of the ureter, *i. e.*, after the vessel has crossed the ureter in its course from its origin at the internal iliac to its distribution in the uterus, he will be required to control the cervical artery, which is given off from the uterine just before it crosses the ureter. It is well, therefore, in controlling hemorrhage from the uterine artery to lift the

bladder strongly forward, so as to put the ureter on the stretch and follow the artery to a point one-half inch beyond the ureter before securing it.

When the tumor is ovarian and the entire ovarian portion of the broad ligament is its pedicle, much may be gained by a preliminary ligature about the top of the broad ligament at the uterine cornu, embracing the anastomosis between the ovarian and uterine arteries, and then securing the ovarian as mentioned before at the pelvic brim, just beyond the fimbria. Such tumors do not as a rule (unless sarcomatous or tubercular in character) attract blood supply from deep lying arteries. After such ligation or clamping, as has been outlined, an ovarian tumor can be cut away, leaving the two peritoneal edges of the broad ligament lying in reasonable close apposition with perhaps one or two slightly bleeding points. The vessel will be found in the two stumps, one at the pelvic brim under the colon, and one at the uterine angle. The peritoneum can then be sewed. This is safer and more desirable than a large stump ligated *en masse* by a heavy cable of silk penetrating the pedicle and tied "both ways."

When the tumor occupies the uterus (as a fibroid of that organ) the ligation or clamping should take place at the two points of superficial blood supply on each side (the ovarian and the round ligament) at once upon commencing the operation. The broad ligaments can then be divided part way down and the mobility of the tumor tested. Toward whichever side it can be most easily rotated, it should be sharply drawn. This puts the broad ligament on the stretch. The bladder is then separated quickly from the uterus and the broad ligaments and lifted up. This puts the ureters upon tension. The broad ligament is now cut away upon the tense, stretched side until the uterine artery is felt. It is followed by blunt dissection out beyond the point where the cervical is given off and secured. Bladder and rectum are now separated from the tumor as the remainder of the broad ligament is cut away. The vagina is cut about the cervix, and a sponge packed promptly into the opening. The broad ligament on the other side now permits of easy access to the remaining uterine artery from below. The vessels that furnish the supplementary deep supply, the vaginal, the branches from the middle vesicle and from the inferior hemorrhoidal should be tied; too much blood is lost in disregarding them. In removing a tumor in such a manner the whole procedure is orderly. There is absence of hemorrhage, as all sources are found and secured before being invaded.

In carcinoma of the cervix when hysterectomy must be done, it is much better done in the same manner, in so far as ligation of vessels is concerned, except that after tying the uterine on the tense side, the uterus is pulled over to that side and the artery tied on the opposite side in the same way from above. The broad ligaments are now cut away, bladder and bowel are now freed from the uterus, and from the upper two inches of the vagina; all hemorrhage is secured, and the uterus and tumor are freed from all connections; the uterus with its appendages is now thrust into the pelvis and into the outlet, the vaginal tube "telescoping" and the growth appearing outside the body. The pelvic peritoneum is now sewed closely up and the abdomen closed. Passing about to the foot of the table the operator cuts away tumor, uterus and adnexa by one sweep of the knife about the vagina. There is no hemorrhage by this method of hysterectomy, and no contamination of pedicle and stumps, as in every other method, vaginal or abdominal.

In preparation of this paper I have used the terms "secured," "clamped or

ligated," etc., purposely, as there are several recognized methods of securing a vessel once the plan of approach and the technique of procedure are established. We may profitably consider the angiotribe, the thermo-clamp, the pressure clamp, and the ligature, the latter again embracing catgut, silk and the wire snare or serre noed.

The Angiotribe. This is a method of crushing the tissues of the pedicle under enormous pressure by means of lever and screw. The arteries and veins are obliterated, the whole being compressed into one mass of solid amorphous tissue by the tremendous pressure exerted. Its advantages are that it can be always used without depending upon electric current or other accessory, and is, moreover, unbreakable. There are no ligatures or other foreign bodies to slip or to be left as an irritant and to cause trouble at some future day. We all know the evil effects caused by heavy cable silk ligatures at times when they have been left in the abdomen. In fact, Dr. Morris, of New York, has said that it requires two surgeons to write history of buried ligatures and sutures: one who puts them in, and one, at some future day when occasion demands and the patient and former operator are far apart, who removes them. I have in the Woman's Hospital to-day a women awaiting operation for the removal of pelvic mass that is piled about a cable silk ligature put on six years ago. Such results are avoided by the angiotribe, and its adherents and advocates claim for it that no case of secondary hemorrhage has occurred. I cannot speak from personal experience, as I have preference for another method to be later described.

The Electro-Thermo-Clamp. In this instrument we combine the crushing power of a strong clamp with the hardening and exsicating power of the electric heating current. As in the case of the angiotribe, I have not used this instrument, but have witnessed its use in many cases. In the amputation of the appendix, and its meso-appendix; in the separation of vascular adhesions; in the severing of pedicled tumors, etc., this instrument has done within my knowledge good work, and I expect in future to find use for this and for the last described. As in the case of the angiotribe, no foreign body is left and the stump is in the best possible condition for absorption, at least theoretically. The instrument is a valuable one.

Pressure Clamps. This is an old and ever-valuable means of securing a bleeding vessel and needs no explanation from me. I will only say that occasions will arise, at rare intervals it is true, when it becomes necessary to clamp a vessel and leave the clamp in place for twenty-four or thirty-six or even forty-eight hours. The very heavy clamps are no longer used, and we find the slender, strong clamp the best. Half a dozen or more should be at hand in every case of tumor removal, to be used in case of emergency.

The Serre Noed or Snare. The practice of throwing a wire about the base or pedicle of a tumor, attaching a serre noed and screw and constricting the pedicle until hemorrhage is impossible, has been known since the beginning of surgery. It is still, with the modern improvements in instrument and wire material, a valuable agent, and I rarely attempt the removal of a tumor without having such an instrument at hand.

I use it less each year, as I became expert in analyzing the blood supply of the tumor and securing it in advance of my work. I have still had occasion once this year to employ it and I know in that case it saved life. The objections to its use are:

1. The prolonged convalescence occasioned by the slow separation of the stump.

2. The formation of sinuses and fistulæ.

3. The pain of subsequent dressings and pressure of pins, etc.

Ligatures. In my opinion this is the best method yet devised for control of bleeding vessel or one that is to be controlled prior to severance. I will not attempt here to settle the old war between the advocates of silk and catgut as ligature materials, except to say that personally I always use a well-selected, well-prepared catgut that has been chromicized to last ten days or more for pedicle work in the pelvis. It is freely absorbed. It is always sterile. It is flexible and easily tied. It does not make a foreign body. It can be applied where no form of angiotribe or thermo-clamp can be applied. It is as strong as silk and as flexible, with none of the disadvantages of the latter.

I use in my best work the Van Horn catgut, prepared by Van Horn & Co., of New York. When I prepare it myself I do so as follows: I select strong, flexible gut of good color and new manufactured and soak it in a four per cent. aqueous solution of formalin for forty-eight hours. If it is desired to make it last ten days I add fifteen to twenty grains of potassium bichromate to each pint of solution. The formalin is washed out by placing the gut in a bowl and allowing the water to enter the bowl from the bottom and overflow. The water is left running for fourteen to twenty-four hours.

The gut is now rolled up in small bundles and wrapped in gauze and boiled for fifteen minutes. It is then laid in alcohol for one day to remove the water and stored in absolute alcohol.

Clean surgery is necessary and an accurate knowledge of pathological anatomy as applied to the vessels of the pelvis. A cool head and a strong steady hand must pick out the sources of blood supply and ligate in advance of cutting. A second ligature should be put on the stump of important vessels after the tissues have retracted from the cutting. By this means hemorrhage is controlled and avoided. The clamp and wire will save us in case of accident.

No. 322 Rialto Building.

THE ETIOLOGY OF SCARLATINA.

By F. L. Class, M. D., of Huron, South Dakota.

The motive prompting this paper is the finding of a characteristic micro-organism constantly present in a number of cases of scarlatina. This microbe was first described by W. J. Class, of Chicago, in a paper read before the Chicago Medical Society, March, 1899. Prior to this efforts were made by various investigators, some of the more notable being made by Klein, Edington, Crajowski and Klebs. Klein described a streptococcus as the causative factor, which is still accepted by a considerable number of physicians. Edington described a bacillus. Crajowski a small diplococcus; but none of these observers produced by animal experiments with their respective microbe a disease whose symptoms resembled scarlet fever as found in the human subject.

The germ mentioned at the beginning of my paper is a diplococcus which has a tendency to change its form. It usually appears as a large gonococcus in form, resembling more this form of a diplococcus than the pneumococcus, being

somewhat more circular than oval in outline. When making cultures it will often appear as a tetrad; in this state the microbe is probably in the act of division; it occurs when the specimen is especially active and virulent. In old cultures very large cocci are formed, these by their division form smaller organisms which do not show the type of diplococci during their early existence. Very rarely they arrange themselves in the form of streptococci. On culture media inoculated with the blood of a scarlatina patient, the germ will grow as a diplococcus. It has no capsule, spores or flagelle, and is non-motile. The polymorphous character of the diplococcus scarlatina has been a misleading feature to many observers. By transplantation, the germ changing its form and size, these observers were impressed with the idea that they had a number of different organisms before them. The fault in these cases certainly lay not with the germ, but was due to the superficial and careless manner in which these men carried out their observations.

The fact that inoculations made with the germ at any period of its varied morphology is invariably followed by a group of symptoms identical with scarlatina, and that the germ has absolutely and perfectly fulfilled Koch's law, proves beyond a doubt that it is the causative factor of scarlet fever.

This germ is found present in the throat, scales and blood of patients suffering from scarlet fever.

In the process of staining most stains can be used. If the culture is fresh it will not stain deeply, as a rule, especially if prepared from the scales. It will sometimes happen that a specimen prepared from a culture taken from a typical case of scarlatina will apparently be devoid of the diplococcus scarlatina, but upon very careful observation the faint outline of the germ can be recognized. This peculiar characteristic has also misled a number of observers. As the germ grows older its affinity for stains increases; it then stains most beautifully, especially with a watery solution of methylene blue or carbolfuchsine. The cultures prepared from throat specimens will, as a rule, stain pretty well, although occasionally they will not take the stain; then the presence of the microbe can only be recognized by its very indistinct outline, but if further transplantations are made, the germ thereby growing older, it stains quite readily, as already stated. The culture medium upon which the diplococcus scarlatina forms the best growth consists of glycerine-agar—agar to which five per cent. of black garden earth has been added. This medium is original with the discoverer of the germ. Upon inoculating with the scales of a scarlet fever patient, after forty-eight hours to perhaps one week, during which time the tube has to be kept in an incubator, at a temperature of about 35° C., small grayish, semi-transparent colonies appear which are at first isolated but later coalesce. Upon this medium it grows as a large diplococcus. Another culture medium is blood-serum, but on this it will not grow as freely as on the one above mentioned. In glycerine-agar it grows rather feebly; on gelatine primarily it will not grow. In milk the germ multiplies very rapidly and retains its virulency to a very marked degree without producing any apparent changes in this fluid. This explains why cases of scarlatina have been traced directly to milk as the infection carrier, while in fact it was also the medium in which it retained its virulency and multiplied. Growths produced from blood which is drawn very early in the disease are quite profuse; as the disease advances and cultures are made from the blood of the patient from day to day the growth becomes gradually less in amount, so that at the close of the

disease it is so meager as to be almost non-perceptible. This phenomenon may be explained on the antitoxine theory. The antitoxic principle, which is elaborated during the course of the disease and contained in the serum of the blood, has an inhibitory action on the microbe. This fact has induced Class to make some careful experimental investigations. For this purpose he used white swine, which are quite susceptible to the disease under consideration. These animals were first made immune by injecting gradually increased doses of a filtered culture of the diplococcus scarlatina. When no further reaction to the poison or toxin contained in the filtered cultures appeared, blood was drawn from the animals, and the serum which contained the antitoxic principle separated from the corpuscular elements. Such an animal having been rendered immune by reason of the antitoxin which was generated, would show absolutely no reaction upon the further injection of the diplococcus scarlatina. Animals that were not protected by a previous attack of scarlatina were then given an injection of antiscarlatinal serum, together with diplococcus scarlatina. Some of these showed a slight illness which was evanescent in character, while others escaped entirely. This proves without doubt that it is possible to make an antitoxin against scarlet fever.

In order to obtain positive results in animal experiments it is necessary to observe the following rules:

1. The culture to be injected into the animal must be glutinous; that is, when some is taken up with a platinum needle it must pull out in strings.

2. The injection must be made into the circulatory system, preferably into the ear veins. In cases where the injections were made into the skin the results were invariably negative.

3. The culture must be fresh and taken from a virulent case in order to produce positive results.

In cases where injections were made into the veins, a rash invariably follows. It was probably produced by the plugging of the smaller capillaries in the skin by diplococcus scarlatina. When injections were made into the abdominal cavity of the animal illness followed, and sometimes death; but the rash was not typical. The organs of the animals showed changes characteristic of scarlatina. I shall not go into detail about the changes found post-mortem in animals injected with the diplococcus scarlatina. These changes were described by Prof. R. E. Le Count, of Rush Medical College, in a paper read before the Chicago Pathological Society. It is sufficient for our purpose to state that they were identical with those found in human scarlet fever, thus adding another link to the chain of evidence that goes to prove that this germ is the true cause of scarlet fever.

Baginski, of Berlin, read a paper last July in which he described an organism like the one described by Class two years ago, claiming originality, but he later acknowledged that his germ was probably the same.

Gradwohl, of St. Louis, who made a careful investigation of this germ, corroborated the findings of Class. Gradwohl demonstrated the presence of the diplococcus scarlatina in seven consecutive cases of scarlet fever. Jaques, of Chicago, without single exception, found the germ present in a great number of cases. Page, of Boston, also reports having discovered the microbe in a number of cases. It has also been found by other competent observers who have not as yet published their results. Class bases the specificity of his germ on having

found it present in three hundred consecutive cases of scarlet fever prior to December, 1899, when he made his announcement before the Chicago Pediatric Society, but since then he has continued to verify this conclusion by finding it invariably present in a still greater number of cases.

I will now briefly describe a few cases in which I have been able to demonstrate the germ just described:

Case I.—F. F., female, age three years, seen January 30, 1901. Initial symptom of vomiting; strawberry tongue; temperature, 104.2° F.; pulse, 130; scarlet rash especially marked on chest and arms; glands on one side of neck enlarged; temperature kept up for about seven days; no albuminuria; desquamation began about the tenth day; recovery. Culture taken from throat at first visit, this was examined twenty hours later and showed the diplococcus scarlatina present in large numbers.

Case II.—B. F., male, aged nine months. Seen February 8, 1901. Initial symptoms: Temperature, 103° F.; pulse, 135; rash plainly visible except from the knees down; tonsils and pharyngeal vault decidedly reddened; case ran a normal course. Culture taken from throat showed a glutinous growth, examination of which proved the culture to be almost pure diplococcus scarlatina.

Case III.—F. F., male, aged six years, brother of case two. Seen January 30, 1901. The disease had set in with vomiting; temperature, 103° F.; pulse, 128; strawberry tongue; throat symptoms quite severe and later in the disease the glands in neck very much enlarged; rash appearing on second day, case ran a protracted course, glands in neck remaining enlarged for over two months. Culture taken from throat when first seen showed a rather abundant growth of large diplococcus scarlatina.

Case IV.—J. S., female, aged five years, seen May 29, 1899. When called the rash was fully developed covering the back, it was miliary in form; quite severe throat symptoms; strawberry tongue; temperature, 103.4° F.; pulse. 138; course of disease normal and desquamation set in about the ninth day, which was quite profuse. Culture from throat and scales showed diplococcus scarlatina.

Case V.—L. S., female, aged two years, seen May 29, 1899. In this case the rash was also fully developed when first seen, and was of a more decided miliary character than the above case, the two children being sisters; strawberry tongue; throat congested and red; tonsils enlarged; temperature, 104° F.; pulse, 140; ran a usual course with desquamation, which was also quite profuse. Culture taken from throat showed a profuse growth of diplococcus scarlatina, together with some staphylococci and streptococci.

Case VI.—J. V., male, aged six years, seen July 24, 1899. Patient was taken sick the day before with nausea, headache and fever. When seen had temperature of 103° F., bright red rash on chest and extremities, throat congested and small grayish-white patches on tonsils, some enlargement of cervical glands; the case ran a normal course and desquamation set in about the ninth day. Culture was taken from throat on second day of disease. The examination of same showed an almost pure growth of diplococcus scarlatina.

SPECIAL ARTICLE.

THE MEDICAL PROFESSION AS CONTRIBUTORS TO GENERAL LITERATURE.

By Geo. R. Highsmith, M. D., of Carrollton, Missouri.

What the medical profession has done for general literature would not fill many volumes, but civilization is indebted to physicians for contributions that exhibit fertility of talent, fullness of resources and extent of industry that command wide-spread admiration.

It may be said that the best contributions came from those who had withdrawn from the exacting duties of active practice, and to a certain extent this is true. To men of genius who hold out the promise of higher fruition in other fields of labor we are ready to give the parting benediction. We can well afford to surrender such men for the sake of a larger liberty and wider amplitude, if thereby we can accomplish the greater good to the greater number.

What Rabelais, the greatest of French humorists, might have accomplished had he continued his practice at Montpellier, may be hypothecated from his editorship of the works of Hippocrates and Galen, and his success as a lecturer. But we cannot forget that when he found in satirical romance a more congenial field, he left, by way of atonement, one of the world's masterpieces of travesty—the grotesque history of Gargantua and Pantagruel.

Nor do we forget that if Schiller exhibited impatience, amounting to insubordination, under the restraint of his duties as military surgeon at Stuttgart, and gave up his position when he needed its pay, it was eventually to become the greatest tragic poet Germany has produced. It was to leave us "Wallestein" and "William Tell" and the "Song of the Bell."

If Thomas Henry Huxley showed a similar restlessness as a surgeon in the English navy, and not only gave up his position to follow his bent, but afterward resigned the Hunterian Chair in the Royal College of Surgeons in order to devote his entire time to the advancement of ethnology, zoology and geology, what a lasting gain it has been to science!

If John Brown found loving companionship in "Rab and His Friends," so have we all.

If Charles Lever found the drudgery of a medical practice not to his taste, he made up for its relinquishment a thousand-fold by the sparkle and dash of his rollicking stories.

If Conan Doyle virtually abandoned the practice of medicine after ten years' experience, it was because he had received greater recognition as the creator of "Sherlock Holmes."

If, after receiving his degree in medicine, J. G. Holland found the practice not to his liking, it was to find his way to the hearts of two continents in "Bitter Sweet," "Katrina," "Gold Foil," and "The Story of Seven Oaks."

If Joseph Rodman Drake, who died of consumption at the age of twenty-five years, found that ill health would not permit him to continue in professional work, he has left us "The Culprit Fay" and "The American Flag."

If Oliver Goldsmith, though fortified with the investiture of Padua, the professional wig, velvet coat and gold-headed cane, was a dismal failure in practice from start to finish, that failure meant for posterity an inheritance such as the "Vicar of Wakefield," "The Deserted Village," "She Stoops to Conquer," etc.

Dr. Asa Gray relinquished the practice of medicine to become the "Father of American Botany."

I could multiply characters of this kind into a long list, but prefer to devote the principal part of this article to those who have made the practice of the healing art their chief occupation.

Although these United States have a greater number of medical men in proportion to the population than any other country in the world, our profession is not popularly regarded as particularly well educated. While, as in other professions, there is a large percentage who never rise above mediocrity, and of whom it may be said,

"A primrose by the river's brim
A yellow primrose was to him,
And it was nothing more,"

I hope to be able to show by the number of our craft who have cultivated literature that the medical profession is, in this respect, entitled to somewhat distinguished consideration. In Europe, for many years, many medical men have been known to posterity almost wholly by their literary efforts. As far back as the tenth century we find, in Moorish Spain, a celebrated Hebrew physician distinguished as a poet. His name was Juda Ha Levi. A translation of a quatrain from one of his poems shows his delicate work:

"Love came, I took him on my knee—
He stood tiptoe mine eyes to see;
He kissed my eyes. Could falser be?
His mirrored self he kissed, not me."

It was not until the middle of the seventeenth century, when the clerical element was divorced from medicine, that the medical profession began to hold a place in general literature. Even later than this one is struck by the frequency in which the study of theology is referred to as preliminary to the study of medicine. Many physicians who afterward became famous as medical practitioners were originally intended for the Church.

A study of the times during the reign of Charles II., of England, will throw some light upon the reasons for these conditions. The reign of Charles II. while it was a period of high civilization for that age, was noted for infidelity. Unbelief in religion went hand in hand with excesses of all kinds. The clergy were in ill repute. Since the fall of the Commonwealth the moral pendulum had swung to the other extreme.

About this time the so-called "wits" began to be the fashion. A man was hardly thought worthy of consideration who made no pretensions to wit; but if he had a reputation as a wit he could be a drunkard, gambler, libertine, or all combined, without losing his social standing in the court circles at Whitehall In England clubs and coffee-houses were first inaugurated, each of which had its coterie of wits, and each its physician. Twice fortunate was the member who could play the wit and the doctor both. I propose to notice briefly a few characters whose names have been handed down to us from that period.

Sir Thomas Browne, 1605-1682, was the most learned physician and the most prominent literary man of his time. He took the degree B. A. at Broadgate Hall, Oxford, in 1626, the degree M. A. in 1629, and the degree M. D. at Leyden, in 1633.

In 1642 he published "Religio Medici," or "The Religion of a Physician." Its success was very great and the author at once became celebrated as a man of letters. In 1646 he published "Pseudodoxia Epidemica," or "Enquiries into Vulgar Errors." In 1658 appeared "Urn Burial" and "The Garden of Cyrus." His form of thought is peculiar, and his style unique, rich with a lavish use of metaphor and allegory. "His "Religio Medici" is considered his best work; his "Vulgar Errors" shows great research; but the whole strength of his genius and the wonderful charm of his style are to be found in "Urn Burial," the concluding chapter of which, for richness of imagery and majestic pomp of diction, can hardly be paralleled in the English language, unless it may be in some of the sublimer passages of Milton's prose. He was knighted by Charles II. in 1671.

Walter Charlton, 1619-1707, was physician to Charles II. and President of the College of Physicians, London. He was the author of "A Brief Discourse on the Different Wits of Men," in which he attributes the variety of talent among men to the difference in the form, size and quality of their brains. He was a writer on theology, zoology, physics and antiquities. He translated the "Morals of Epicurus."

Henry Vaughan, 1621-1693, was born in Wales, but studied medicine and practiced for the most part in London. Before he began the study of medicine he published a volume of poetry. He began to practice at twenty-eight and continued as long as he lived. He wrote "Mount of Olives," a mystic prose work. He is best known, however, as the author of the poems, "The Retreat," "The World" and "Beyond the Vale."

Sir Richard Blackmore, 1650-1729, was educated at Westminster and Oxford. He graduated in medicine at Padua and settled for practice in London. In 1697 he was chosen one of King William's physicians. He had a passion for writing epics, no fewer than seven being published between 1695 and 1723; "Prince Arthur," in ten books, "King Arthur" in twelve, "Eliza" in ten, "Creation" in seven, "Redemption" in six, "Nature of Man" in three, and "Alfred" in twelve. His "Creation" appeared in "Johnson's British Poets." Addison and Johnson praised him highly, Johnson saying that his name would be transmitted to posterity as the "first favorite of the English muse."

Sir Samuel Garth, 1670-1718, was a man of great wealth and learning. He became a member of the College of Physicians, London, in 1691. He was the first physician of prominence to advocate the establishment of free dispensaries for the poor. For this he was assailed by the apothecaries and by his own narrow-minded brethren. In turn he ridiculed them so mercilessly in his mock-heroic poem, "The Dispensary," that it was the talk and enjoyment of the town for months, passing through three editions the first year. He published "Claremont," a moral epistle in verse. He was a very genial character; "Well natured Garth" Pope called him. Pope also said that "he was as good a Christian as any man living without knowing it." He was the intimate friend of Swift and Addison. It was said of Garth that "his practice was not commensurate with his great abilities, and that his society was courted by the fashionable set, not because of medical eminence, but because of distinction as a wit and poet." Not-

withstanding, however, handsome compliments were paid to his professional attainments. He was selected in 1697 to deliver the Harveian Oration, in which he pronounced a eulogy on King William which led to his election to membership in the famous "Kitkat" Club. It was Garth who extemporized most of the verses inscribed on the drinking cups of the Kitkat Club, and which I am told are preserved to this day.

Dr. Garth was the principal physician of the Whigs and physician in ordinary to the king. He followed the Duke of Marlborough through all the vicissitudes of his career. He was knighted by George I., in 1714, with the Duke of Marlborough's sword. He delivered the oration at the funeral of the poet Dryden.

Dr. John Arbuthnot, 1667-1735, was the bright particular star of that splendid constellation, the "Scriblerus Club." The first book of "The Memoirs of Martin Scriblerus," published in Pope's works, is undoubtedly the work of Arbuthnot. It is an admirable combination of wit and learning, and has been said to be the finest specimen of sarcastic humor in the English language.

In 1705, at the request of Queen Anne, he was chosen physician extraordinary, and four years later was made royal physician in ordinary. He was now in the very center of the literary society of the time, and his great talent, massive learning and brilliant wit enabled him to take a prominent place. He was on intimate terms with Pope, Gay, Swift and Parnell, and quickly became one of the foremost literary men of the Tory party. In 1712 appeared the celebrated political allegory called "The History of John Bull." It was from this that the term "John Bull," as applied to the English nation, originated. When "The History of John Bull" first appeared it was generally ascribed to Swift, but passages in Swift's own letters make it quite certain that Arbuthnot was the sole author.

Dr. Samuel Johnson, speaking of the writers that graced the reign of Queen Anne, said: "I think Arbuthnot the first man among them. He was the most universal genius, being an excellent physician, a man of deep learning, and a man of much humor." Much of his success was due to his humanity, which Swift declares was equal to his wit. But Swift furnishes a still better index in one of his own poems, in which he laments that he is,

> "Far from his kind Arbuthnot's aid,
> Who knows his art but not his trade."

Dr. Arbuthnot attained great eminence in his profession, and in 1727 delivered the Harveian Oration. Dr. Arbuthnot's "Medical Notes" were collected and republished about three years ago.

During the first half of the eighteenth century physicians began, more and more, to attach themselves to political parties, or to court the favor of men of rank. The Whig and Tory parties each had its physician as well as its club and coffee-house. By the middle of the eighteenth century most physicians and surgeons of the better class had either assumed offices and positions in which they were supported by the state, or were settled by their noble patrons in permanent residences. Some of them were supplied with large libraries, either by their patrons or the government, and the most of them enjoyed moderate prosperity. Intellect had marched forward with gigantic strides; among writers wit had, in a measure, given place to satire.

Dr. John Armstrong and Dr. Mark Akenside held the boards as contemporaries of Oliver Goldsmith, Tobias Smollett, Horace Walpole, Richard Brinsley Sheridan, David Garrick, Samuel Johnson, *et id genus omne*. Clubs and coffee-houses were still a prominent feature of scientific and literary circles, but the character of the company had changed. There was a mingling of aristocracy with talent, the leveling of ranks by the force of intellect, the assembling, not only of all the celebrities that Europe could boast, but of all from the whole civilized world that could enhance private enjoyment. Company was not selected for rank, but for peculiar merit or acquirement; pomp and wealth were made subsidiary to the true luxury of intellectual conversation. The famous literary club of which Johnson was the autocrat was at its zenith.

Dr. John Armstrong, 1705-1770, received degree of M. D. at Edinburgh University and settled for practice in London. In 1746 he was appointed one of the physicians to the hospital behind Buckingham House, and in 1760 physician to the army in Germany, a position which he held until the peace of 1763. His first publication was "An Essay for Abridging the Study of Physic," and was published in 1755. It was a satire on the ignorance of the apothecaries and medical men of his day. Two years later he published "The Economy of Love," the indecency of which very much damaged his professional practice. In 1774 appeared his "Art of Preserving Health," a didactic poem upon which his reputation as a literary character rests. He also published about the same time a volume of "Miscellanies," which displayed considerable humor and powers of observation.

Mark Akenside, 1731–1770, entered the Theological School of Edinburgh University in his nineteenth year, but, like many young men of his time, changed his mind and transferred from the theological to the medical department. His reputation for oratory was so pre-eminent that Robinson, the historian, used to attend a debating society of which Akenside was a member to hear his speeches.

In 1743 the publisher, Dodsley, came to Pope with a bundle of manuscript for his opinion, for which the writer wanted 120 pounds. After reading the manuscript, which was "Pleasures of the Imagination," the "Oracle of Twickenham" advised the publisher to "make no niggardly offer, as this was no every-day writer." In his twenty-third year, like Byron, he awoke to find himself famous. The same year that he graduated in medicine he became a literary celebrity. His contributions to medical literature were of a very high order. His inaugural thesis, describing the formation and growth of the human fetus, was characterized by originality and acute observation. He continued through life to alternate his contributions to medical science with additions to general literature. The fact that he was celebrated as a poet was not sufficient, as was said of Goldsmith, for the public to believe him incapable of practicing as a medical man. He attained considerable distinction as a practitioner, and received numerous appointments.

In 1754 he was elected a fellow of the College of Physicians; in 1755 he delivered the Gulstonian lectures; in 1756 he delivered the Croonian lectures; in 1759 he was chosen chief of St. Thomas Hospital; in 1760 he delivered the Harveian oration.

His fame as a poet is secure. Some of his minor poems are conspicuous for classical grace and charm of expression.

Notwithstanding the distinction he enjoyed, both as physician and man of letters, he possessed great personal vanity, which often brought him into ridicule. He furnished the original from which "The Doctor" in Smollett's "Perigrine Pickle" is drawn.

Passing to the last half of the eighteenth century and the first half of the nineteenth, we find a long list of physicians who have been active contributors to general literature.

Among the illustrious names of this period we mention Erasmus Darwin, grandfather of Charles; Henry Dearborne, David Ramsey—historian of the Revolution; Benjamin Rush, one of the signers of the Declaration of Independence, and a prolific writer both in medicine and general literature; Lemuel Hopkins, Samuel Latham Mitchell, mentioned by Stedman in his "Poets of America;" James Currie, editor of an edition of Burns, with "An Introductory Criticism, and an Essay on the Character and Condition of the Scottish Peasantry;" John Wolcot, Thomas Brown and James Gates Percival.

Erasmus Darwin, 1731–1802, physician, scientist, and poet, deserves to be noticed somewhat in detail. He took the degree M. D. at the University of Edinburgh, and settled as a physician at Litchfield, England, where he gained a large practice. While here, it is said, he did much to diminish drunkenness among the inhabitants. He is said to have been a good eater, but drank nothing but water.

He wrote: "The Temple of Nature," "The Shrine of Nature," and "The Botanic Garden." The second part of the latter, "The Loves of the Plants," furnished occasion for a clever caricature by Canning, "The Loves of the Triangles."

He is also the author of a scientific work, "Zoonomia," which contains a system of pathology and a treatise on generation, in which very nearly the same ideas are advanced as underlie the modern theory of evolution.

Erasmus Darwin says: "Would it be too bold to imagine that in the great length of time since the earth began to exist, perhaps millions of ages before the commencement of mankind, would it be too bold to imagine that all warm-blooded animals have arisen from the same living filament, which the great First Cause endued with animality, with the power of acquiring new parts, attended with new propensities, directed by irritations, sensations, volitions, and associations, and possessing the faculty of continuing to improve by its own inherent activity, and of delivering down these improvements to its posterity, worlds without end, ... and that one and the same kind of living filament is and has been the cause of all organic life?"

May not Charles Darwin be more indebted to his illustrious grandfather, who did his thinking and writing as he journeyed from one patient to another, than many of us suppose? May not his love of nature, and his capacity for investigation, and the facility with which he classifies facts and formulates theories be due, in part at least, to hereditary transmission of genius? How much may Huxley, Tyndall, Spencer, Haeckel, Helmholtz, and other apostles of evolution, be indebted to this modest practitioner of medicine? When we take into consideration the poverty of the English language at that time, especially in scientific terms, how little difference exists between the above quotation from Erasmus Darwin and Tyndall's expression: "One single atom of protoplasm contains the power and potency of all things."

The poetical reputation of Darwin is as bright as the flowers that form the subject of his verse. Cowper praised his song for its rich embellishments, and said: "It was as strong as it was learned and sweet."

James Gates Percival, 1795–1856, was a native of Kensington, Connecticut. He graduated at Yale in 1815, at the head of his class. He taught school for a while, then studied medicine and located in Charleston, South Carolina. In 1824 he was appointed assistant surgeon in the United States Army, and was made professor of chemistry at the United States Military Academy. In 1822 he published "Prometheus" and "Clio;" in 1826 two volumes of poetry, and in 1843 his "Dream of a Day." His poetry shows delicacy of touch, fineness of feeling, and sweetness of diction.

Coming down to this day and generation we are overwhelmed by the wealth of material. There never has been a time in the history of the world when knowledge was so easily accessible and so eagerly sought after. The afternoon of the nineteenth century has been rich in discovery, invention, and history. If we pause to take an inventory we are bewildered with amazement! Compared with fifty years ago, achievements are beyond the dreams of the wildest fancy! The wave of no fairy godmother's wand could create such wonders! The miracles of yesterday are the commonplaces of to-day! We have hardly time to make a prophecy before it hastens to be fulfilled!

The medical profession has kept step with the march of progress. During the past fifty years, biology, embryology, and physiological chemistry have been newly created. We have watched the birth and growth to vigorous maturity of bacteriology; the word "microbe" has been added to the vocabulary, and "toxines" and "ptomaines" have been evolved from the hypothetical.

In an address delivered before the Alumni Association of Jefferson Medical College, Philadelpha, in April, 1891, Dr. Ross R. Bunting mentions the names of more than fifty graduates of "Jefferson" who have found time amid the exacting duties of active practice to indulge in literature, and have furnished contributions which entitle them to recognition in purely literary circles. About forty of them belong to the last five decades, many of them are yet living.

Dr. Elisha Kent Kane, 1820-1857, is the author of "The United States Grinnell Expedition in Search of Sir John Franklin During the Years 1850-1851," "Arctic Explorations," and "The Second Grinnell Expedition in Search of Sir John Franklin, 1853-1855."

Dr. Kane was singularly original both in thought and expression. Dr. Elder, his biographer, says: "In 1500 pages of matter he never makes a quotation to assist himself in expression, except one from Bunyan, and that is used for its allegorical effect as much as for its beauty and power." Poetry was a distinct element in his mental make-up and finds expression in the higher forms of prose. One instance of poetic-prose writing is shown in the following extract: "I am afraid to speak of some of these night scenes. I have trodden the deck and the floes when the light of the earth seemed suspended—its movements, its sounds, its coloring, its companionship—and as I looked on the radiant hemisphere circling above me, as if rendering worship to the unseen center of light, I have ejaculated in humility of spirit, 'Lord, what is man that Thou art mindful of him?' And then I have thought of the kindly world we have left, with its revolving sunshine and shadow, and the other stars that gladden it, with its

changes, and the hearts that warmed to us there, 'til I have lost myself in memory of those who were not; and they bore me back to the stars again."

Dr. Kane died at the age of thirty-seven. What a mind of such fertility might have accomplished had he lived to reach the allotted three-score and ten who can say?

Another prolific contributor to Arctic literature was Dr. Isaac Israel Hayes, 1833-1881. He published "An Arctic Boat Journey," "Cast Away in the Cold," "An Old Man's Story," "The Open Polar Sea," "The Land of Desolation," etc.

Dr. Oliver Wendell Holmes was beyond doubt the foremost contributor to general literature from the ranks of the medical profession during the past fifty years. He combined high scientific attainments with the greatest versatility and the rarest literary genius. He was equally at home among the "dry bones" of anatomy, within the glow of the crucible, or amid the revelations of the microscope. As a biographer, romancer, philosopher and poet he takes high rank.

At a banquet given to Dr. Holmes by the New York Academy of Medicine in 1883, Whitelaw Reid said in the course of his response to "The Press": "It is a rare compliment to your profession that, after all the wooing of the muses, Dr. Holmes still made medicine the business of his life, and thus gave up to Beacon street what was meant for mankind. If all his literary work is only the fruit of such leisure as could be snatched from an arduous employment, what might the world have had if the facts had been reversed—if literature had been his profession and medicine his recreation?"

Our Autocrat has shown how the anatomist in the lecture-room could trace the tortuous windings of the divisions of the trigeminus nerve, and then go home and pen such immortal verse as "The Living Temple" or "The Chambered Nautilus;" how he could descant, in his inimitable way, on the wonderful texture and the divine purpose of the ovarian stroma, and then, with an eye to the fitness of things, toss off in ringing measures, "God Bless Our Yankee Girls."

It would be easy to prepare a long list of those who, in addition to renown as ministers of the healing art, have acquired distinction in the congenial fields which are open to explorers in history, biography, criticism, poetry, drama and fiction.

Not that, as a rule, they have sought laurels and honors in this direction; but their success has served to prove the harmony and compatibility of their participation in medical literature with their contributions to general literature, to show that the allurements of the latter involve no disloyalty to professional duty and obligation, and to point out that the transient change from one to the other is not a change of work, but a transference from work to recreation—a call from labor to refreshment.

A fair review of the works of orators who on occasion could rise to the loftiest height of fervid eloquence; a superficial notice of the poetic legacies, the outgrowth of refined and brilliant imagination; a resume of the outflow of the extraordinary scholarship of a Charles D. Meigs, who was at home in the whole range of literature, science and art; a summary of the literary labors of that encyclopedist, Robley Dungleson, over and beyond his stupendous medical authorship—any of these would more than consume the time at our command. What busy men were they! How faithfully they served their day and genera-

tion! Their successors are adding to the accumulating stores of professional and general literature.

Among those who are now living I have time to mention but two, and they both hail from that great center of medical and literary culture, Philadelphia. They are Silas Weir Mitchell and Solomon Solis-Cohen.

Dr. Mitchell is one of the busiest and most successful of men, professionally, but has availed himself of every interval for work as essayist, novelist and poet, and his contributions are among the daintiest and most delightful in English literature. A competent critic says of his poetry: "Dr. Mitchell's poetry is full of the sincerest feeling, and the most brilliant imagings. He creates a character of man or woman; or paints a picture of brook, or trees and flowers, or mountain tarn; or describes the violet's scent, the daisy's dress, or the timid breeze's mild caress; and the man or woman who has sprung from the realms of his fancy, . . . and that he would exalt, becomes not only real, but of finer clay, of nobler spirit than ordinary mortals; his pictures of natural objects glow with sunset beauty and splendor, and are filled with warmth, tenderness, and the charm of autumnal afternoons."

Dr. Mitchell was known all over the civilized world as a distinguished physician and medical author before he contributed a line to general literature. He is now equally distinguished as essayist, novelist and poet.

Solomon Solis-Cohen is a young man, having graduated in medicine in 1883. He is a very busy practitioner, a frequent contributor to medical literature, the translator into English and editor of several works from French and German authors, besides being one of the lecturers in Jefferson Medical College. In addition to a great deal of original work, he has translated from the Hebrew many of the verses of the Jewish poets who flourished in Moorish Spain from the tenth to the fourteenth century.

Of his poem, "I Know That My Redeemer Liveth," Whittier spoke in terms of highest approval, and incorporated it into his "Songs of Three Centuries." It is the fervent protest of the student of nature against modern "Agnosticism." The false science which would deny to man the power to know his maker.

And now in conclusion: The medical profession is not only entitled to a conspicuous place in literature and science, by reason of original work and investigation, but has won such a position in general esteem as to attract the attention of professional literati. Some of the most lovely and most lovable characters introduced into recent fiction are doctors, viz.: Dr. Lydgate in "Middlemarch," Dr. Jekyll in "Dr. Jekyll and Mr. Hyde," and Dr. MacLure in "Beside the Bonnie Brier Bush."

Besides filling no inconsiderable niche in general literature, the fields of mental and moral sciences, chemistry, botany, geology, zoology, physiology and natural history have been especially enriched by contributions from physicians. The facts upon which Darwin's theory of evolution is based would be very meager indeed without contributions from the medical profession. The physician is a potent factor in any and every field in which he enters. I cannot refrain at this point from making a quotation from an address on the occasion of a banquet given to Dr. E. H. Gregory recently, in which Dr. A. M. Dockery, Governor of Missouri, responded to "The Physician as a Citizen." Governor Dockery said: "The physician in the discharge of the momentous duties of American citizenship

has never yet failed in the performance of duty. As a conservative, yet forceful factor in our political life, he is unsurpassed. . . . His relations to the people are so close and so confidential that, although he is not often classed as an office seeker, he exercises a most powerful influence in determining who shall hold office. . . . As a citizen he is enterprising, progressive and public-spirited. As a philanthropist he has no superior. . . . As a champion of education there is none more zealous. Sweeping the whole range of human endeavor, the physician, at every point, touches elbows with every cause which ennobles humanity and uplifts the human race."

That poetry and the natural sciences should be especially attractive to the physician is not to be wondered at when we remember that his professional work brings him face to face with nature. To him who is in love with his profession and has his eyes and ears and heart open, his occupation begets a love for blue skies, green fields and running brooks, gorgeous sunsets, mellow twilights and fair dawns, the song of birds, the hum of bees and the prattle of children; in fact, the disposition to appreciate nature in all her phases—to find "songs in trees, sermons in stones, books in running brooks, and good in everything."

INTERSTATE MEDICAL JOURNAL.

EDITED BY

WILLARD BARTLETT, M. D.
MALVERN B. CLOPTON, M. D.
HUGO EHRENFEST, M. D.
MARTIN F. ENGMAN, M. D.
ALFRED FRIEDLANDER, M. D.
R. B. H. GRADWOHL, M. D.
JOHN GREEN, JR., M. D.
H. McC. JOHNSON, M. D.
JESSE S. MYER, M. D.
WARREN B. OUTTEN, M. D.
WILLIAM PORTER, M. D.
WILLIAM E. SAUER, M. D.
SIDNEY I. SCHWAB, M. D.
ALBERT E. TAUSSIG, M. D.

OTHO F. BALL, M. D. Managing Editor.

COLLABORATORS:

MAX MICHAELIS, M. D.,
Docent of Internal Medicine, University of Berlin, Germany.

FRANZ NEUGEBAUER, M. D.,
Professor; Director of the Evangelical Hospital, Warsaw, Russia.

JULIUS NEUMANN, M. D.,
Docent of Obstetrics and Gynecology, University of Vienna, Austria.

JULIUS SCHNITZLER, M. D.,
Docent of Surgery, University of Vienna, Austria; Surgeon-in-Chief, Franz Joseph Hospital, Vienna.

HEINZ WOHLGEMUTH, M. D.,
Berlin, Germany.

Address all communications to the INTERSTATE MEDICAL JOURNAL, LINMAR BLDG., ST. LOUIS, MO.

EDITORIAL COMMENT.

THE RELATIONSHIP BETWEEN MALIGNANT TUMORS OF THE OVARIES AND OTHER ABDOMINAL ORGANS.

Almost all text-books state that malignant tumors of the ovaries are usually primary and but rarely secondary, viz., metastases, and that these primary tumors of the ovaries very frequently form metastases by involving first the peritoneum, next the stomach, liver or intestine. According to more recent researches these teachings require a radical modification. For about a year the reports of cases of carcinoma of the ovaries, which undoubtedly are but metastases of cancers primarily situated in other abdominal organs, have been decidedly on the increase. Cases of this nature are reported by E. Kraus, Lamparter, Sauter, Roemer and others, and reviews of these and other reports may be found in the department of Gynecology and Obstetrics of this issue. Schlagenhaufer, in a paper published in *Monatschrift fuer Geb. und Gyn. Ergaenzungsheft*, 1902, adds eight more cases of this class, and submits the so far recorded seventy-nine cases to a careful consideration. His conclusions are not only of great interest from the standpoint of pathology, but are also of eminent practical importance. Most of these cases were observed and reported by gynecologists, and almost all the reports therefore advise, from a gynecologist's standpoint, that an operator who is called upon to extirpate malignant ovarian tumors must first of all make a careful search for a primary cancer in the stomach, gall-bladder or intestines.

Schlagenhaufer shows that in these seventy-nine cases the primary carcinoma was situated in the stomach sixty-one times. The technique of the radical operation of gastric cancer has been steadily improved; the immediate results are now almost satisfactory; the operation is more and more frequently performed, and therefore we believe these new observations are of almost greater importance to the surgeon than to the gynecologist.

In view of the above the necessity arises that in every case of carcinoma of the stomach in the female, a careful vaginal examination be made before the advisability of a radical operation can be considered. Presence of enlarged, hard, nodular ovaries will suggest the possibility of metastasis; concomitant ascites will make the contamination probable; the proof that the ascitic fluid is of sanguinolent character will establish the diagnosis almost beyond doubt. Such a finding will, in the light of these new observations, mean an almost positive contraindication against radical operation. The mode of infection of the ovaries in cases of primary cancer of other abdominal organs has been established as follows: First the peritoneum is affected; from the peritoneum the cancer is transferred to the ovaries by direct contact infection; from the ovaries the cancer may spread by way of the lymphatics into the uterus, broad ligaments, and even tubes, as is for instance described by Roemer. From this it can be seen that even an extirpation of both ovaries concomitantly with the removal of the gastric cancer could not be considered a radical operation, on account of the infection of the peritoneum almost invariably found in these cases.

These new views as regards the relationship between malignant tumors of the ovaries and the stomach may furthermore be of practical value to the internist. It can be seen from many of the histories cited by Schlagenhaufer and others, the ovarian metastases grow very fast, and thus may be more easily discovered than the slowly developing primary tumors. To the writer it seems probable that in certain cases of gastric cancer in the female the diagnosis could be established or confirmed by means of a gynecological examination.

The importance of these recent findings for the pathologist is evident. They have changed our views as regards the frequency of primary malignant tumors of the ovaries, and have established the relationship between certain malignant tumors of abdominal organs and malignant tumors of the ovaries as being primary tumors and metastases. Finally, they at last offer a more satisfactory explanation for the well-known fact that malignant ovarian tumors are found as a rule to be bilateral.

STAPHYLOCOCCI IN DISEASES OF THE SKIN.

There is no branch of medicine whose pathology is so difficult of elucidation as that of diseases of the skin. The science of dermatology is overburdened by a nomenclature which, unfortunately, often assists in confusion. Pathologic processes of the skin are not always fixed or definite in their appearances, the objective symptoms being subject to various changes induced by climate, intercurrent or accidental infection, trauma, dirt and other forms of irritation. Thus an apparent entity is often changed in some minor points by these various influences, when an adjective or two is added to its name or new string of terms is given it, and it appears in the guise of a new disease. The dermatologists are trained to

see, and from this acuteness of vision there arise many confusing and unnecessary adjectives.

Again, certain definite infections of the skin may present quite different objective phenomena, dependent upon the virulence of the special culture of the specific organism, the soil afforded by the skin, climate, season, etc. These facts have been instrumental to a certain degree in producing this confusing nomenclature. Yet we have a nomenclature by which the men working independently throughout the world understand each other fairly well, and even under these word-disguises processes similar in character are often recognized and properly placed.

The only hope for the future is through improved methods in bacteriology and histopathology, by the means of which a proper understanding of the various diseases can be established, with a nomenclature expressive of the true pathologic features.

To illustrate the almost bewildering state of these things which exists at present, at the last International Congress of Dermatology the question of the parasiticity of eczema was one of the subjects for discussion. In all of the papers upon this subject the various authors expressed their doubts as to what conditions should be included under this term, thereby forcing upon the congress the recognition of the necessity of discussing at the next meeting the question of what should be understood by the term eczema and what conditions should be included under it. It can readily be seen how useless it would be to search for the course of eczema, for example when so many probably different conditions are at present included under it. This class of so-called catarrhal diseases of the skin is especially difficult to classify, when merely studied from their objective clinical symptoms; and yet the difficulty is not materially lessened by an investigation of their histopathology or bacteriology with the present methods. Unna has made a great step in the right direction by his methods of selective staining, but his efforts to carry these ideas into bacteriology and by staining, culture media, etc., produce so many varieties of eczema cocci is not only confusing but certainly erroneous. When we deal with the staphylococci by means of artificial culture media, we must remember that minor differences in color, size and contour of the cocci and colonies are probably produced by slight varieties of artificial growth or media. This will obtain also upon the skin itself, as it is a media varying in reaction with the individual, the season, and his state of health. The researches of the essayists at the last congress peculiarly demonstrated this when they all reported finding several varieties of staphylococci in their search for the special cause of eczema.

Bacteriology of diseases of the skin is at present developmental. But to unfathom the role of the staphylococci is a most important step in the right direction.

THE PASSING OF THE MASTERS.

There can be no gainsaying that the present enviable position of medicine in the domain of science is due largely to the untiring and unselfish efforts of the old school of German physicians now passing away. They have accomplished a noble work, and are leaving behind them monuments that time can never cause to crumble. They are bequeathing to posterity the most important links that have yet been added to the chain whose far-off end is to see medicine an exact

science. The most exalted function of man is to contribute to the well-being of those yet unborn—the coming men. No matter how small or insignificant such a contribution may seem in the realm of science, like the seed in the earth, it is sure to grow when time and circumstances are propitious. All things great have had small beginnings. The old masters were thoroughly awake to this fact, and were content to give their very best efforts to the rounding out and completion of one small link it that endless chain. Some have lived to see the full fruition of their labors, others have gone to eternal rest with their labors but half completed. In these restless, "nervous" times we need their lessons and their inspiration. In the desire to accomplish large things quickly, we are apt to be superficial; beginning with false hypotheses, we reach erroneous conclusions. Under these circumstances we are not only not contributing to posterity, but are placing upon the shoulders of future generations the unnecessary burden of disproving groundless theories. One needs but glance hastily through the pages of our medical journals, local and foreign, to learn the tendencies of the times.

We are rushing to print and to fame, regardless of results. We are not following in this the teachings of those who have taught us the fundamental principles of medicine. For the time being we must console ourselves with the fact that "fads" are but short-lived, and that reaction must follow. Speed the time when once more all observations in medicine will be based upon a knowledge of its fundamental principles, upon concentration of thought, mature deliberation, and profound regard for the truth of every statement handed down to posterity through the agency of medical archives.

Among those who have given us examples worth emulating, who will never die in the memories of men, may be mentioned Virchow, Kussmaul, von Leyden, Koenig. The first two having attained their eightieth year and the last two their seventieth, have recently been honored by their colleagues in a manner befitting their high positions in the world of science. It is indeed gratifying to know that Prof. Virchow is recovering nicely from the recent injury sustained while getting off a street car, and that his remaining days will be spent in usefulness to his profession. May they be many.

AN INTERNATIONAL TUBERCULOSIS CONGRESS AT THE WORLD'S FAIR.

It has been suggested—and the suggestion seems a timely one—that a movement be started looking to the convening of an international congress for the consideration of tuberculosis at St. Louis during the World's Fair. This subject has been receiving marked attention from the various nations, and each has considered the best plans for combating the disease within its boundaries. It would be very appropriate, therefore, for the various countries interested to look to a concerted action. In fact, it is only through international action that the desired results can be attained in stamping out such a wide-spread disease. The king of England has recently offered a prize of $4,000 for the best plans presented of a sanatorium that will accommodate one hundred patients. These plans may be presented by a physician, or by a physician and architect working in unison. It is hoped through this means to erect an institution combining all of the best ideas, and which may serve as a model for all Britain, and even the world. Similar interest has been manifested in other countries. It would be

well indeed if concerted action on the part of the various nations could result in the crystallization of all the rational ideas into one universal plan of action.

MEDICAL CHARLATANS HERE AND ABROAD.

It was with much amusement that we read in a recent number of the journal of the *American Medical Association* a reprint of a circular-letter to American physicians from the Denver School of Osteopathy. A ten-months' course in the Principles and Practice of Osteopathy is offered for a fee of $200. The course is to extend over ten months, though it may be shortened if the student shows especial aptitude. As a bit of impudence, this invitation to physicians to sit at the feet of charlatans has, we believe, never been surpassed; it is not, however, surprising, considering the recognition, both osteopaths and christian scientists have obtained from many of our State governments. They manage these gentry better in Germany, as the two following examples show:

About the middle of March one Ferdinand Schumacher was tried in the criminal court at Darmstadt for obtaining money under false pretenses. He was the proprietor of an institute in which "nervous, skin, sexual and female diseases" were treated ostensibly on the "no cure, no pay" plan. While his consultation fees were nominal, he charged from $5 to $8 for medicine furnished his patients. In the nineties he had been sentenced to two and a half years in the penitentiary for similar practices, which, however, he resumed soon after his release. He was again arrested last year, forfeited a bond of over $4,000 by fleeing to this country. From here he went to Switzerland, whence he was extradited and taken back to Germany. Here he was sentenced to four years in the penitentiary, $1,100 fine and ten years' loss of civil rights.

A "magnetopath," Karl Offermann, had been called in to treat a servant girl suffering with acute articular rheumatism. He had her come to his office in a cab on four occasions, and there treated her by stroking the knees with his hand. Instead of improving, the rheumatism grew worse. The girl thereupon went to a hospital, and was discharged as cured ten days later. Offermann was cited before the Cologne criminal court to answer to a charge of malpractice. It was shown that the girl's condition had been rendered worse by her cab-rides and by the manipulations employed by the defendant. The latter was fined $100, and while he has appealed, there is every prospect of the judgment being affirmed in the higher courts. The irregular practitioner's life, at least in Germany, is not a happy one.

THE EXTERMINATION OF RATS.

Now that the part played by rats in spreading the plague has been established beyond dispute, many cities, especially seaports, are endeavoring to exterminate the entire race. At Copenhagen a "Committee for the Rational Extermination of Rats" has been formed which is trying to procure international co-operation for the destruction of these rodents. Something has already been accomplished by the committee. In addition to the establishment of an exposition of apparatus and methods for destroying rats on a large scale, the committee has offered a reward of about three cents for every rat destroyed. As a result, over one hundred thousand have been killed in Copenhagen during the past

eighteen months. At Stockholm, where the same system is in vogue, a still greater number has been killed within the year. The only objection to this method of ridding a town of rats is that the survivors, finding the competition for food less keen on account of the diminution in their numbers, would probably propagate their species with a correspondingly greater rapidity, not to speak of the temptation offered the populace to secretly establish rat-farms.

MYOPIA IN THE BRITISH ARMY.

The *Bulletin de Therapeutique* relates, not without glee, the result of an inquiry made by Dr. Grimshaw upon the prevalence of myopia among the British soldiers in South Africa. It seems that the War Office furnishes its soldiers with false teeth, but in spite of the prevalence of myopia in the army, forbids them to wear glasses. This may perhaps explain the disproportion between the losses sustained by the English and those sustained by the Boers. One soldier who had been on the firing line all day is said to have replied to a question regarding his acuteness of vision: "During the entire battle I did not see a single Boer. Yes, sir; we have been shooting at the kopjes all day on the chance of hitting a Boer or two." If this, as Dr. Grimshaw says, is not an exceptional case, we need not be surprised at the duration of the struggle just ended.

MEDICAL AND SURGICAL PROGRESS.

INTERNAL MEDICINE.

IN CHARGE OF

JESSE S. MYER, M. D.

Sugar, as Such, in the Diet of Dyspeptics.—MORGAN (*Archiv fuer Verdauungs-Krankheiten*, vol. viii, pt. 1 and 2, 1902) conducted a series of experiments with reference to the influence of sugar upon gastric digestion. The first series was carried out upon healthy, strong laborers; the second upon individuals suffering from a marked hyperchlorhydria; the third upon those afflicted with chronic gastritis; the fourth upon an obstinate case of achylia gastrica.

It was found that large quantities of sugar in the diet of both sick and healthy individuals greatly influenced the secretory function of the stomach, reducing the quantity of both acids and ferments.

In cases of hyperchlorhydria such a diet diminished the acid production in about the same proportion as in a healthy stomach.

In all of the cases investigated, excepting those of achylia gastrica and chronic gastritis, it was possible to increase or diminish the production of acid in the stomach by adding to or withdrawing sugar from the diet. In the first case, the negative action upon the glands was probably attributable to atrophy; in the last to the cleansing and bactericidal action of sugar, when added to the daily diet in large quantities. The sugar diet caused a decrease in the activity of the ferments in all excepting the cases of gastritis chronica. It was also found that the proteolytic function was also influenced. Propeptones were produced in larger quantities than the peptones, under conditions, however, which resulted in a weakening of the gastric functions.

The subjective symptoms of the patients showed conclusively that sugar in sufficient quantity interferes with gastric fermentation, and when administered, it prevented the further eructation of gases. Patients suffering from hyperchlorhydria were promptly relieved of the pyrosis which so often accompanies it. The influence upon the appetite was inconstant and permitted of no definite conclusions. Its action upon the bowels, however, was well defined in every case. The peristalsis of the intestines was increased, the stools were increased in quantity, and their consistency was always soft. The urine was invariably increased and with it the urea. This leads to the conclusion that individuals with a uric acid diathesis should avoid sweet foods.

Diabetes Insipidus and Paralysis of the Bladder.—POSNER (*Berliner Klinische Wochenschrift*, No. 19, 1902) reports a case of a diabetes insipidus in which there occurred a very unusual complication. This patient had been passing an unusually large amount of urine for over six years. There developed ultimately symptoms of indigestion and pressure in the abdomen. It was found upon investigation that the lower abdomen was greatly enlarged, and the enlargement seemed to correspond to the bladder. The patient was asked to empty the bladder and passed 250 cc. of urine. A catheter was introduced and 2200 cc. removed immediately afterwards. Frequent determinations of the twenty-four-hour quantity showed that from 4–6 liters were excreted daily. There was absolutely no obstruction in the urethra; the prostate was of normal size, and a cystoscopic examination showed the bladder mucous membrane to be perfectly normal. A thorough examination of the central nervous system excluded the possibility of

the cause lying there. Catheterization was now carried out daily, and each time an exceedingly large quantity of residual urine was removed.

With the exception of the exceedingly low specific gravity of the urine, 1002–1004, nothing abnormal could be found, either upon microscopical or chemical examination.

Massage, faradization and medication all failed to materially reduce the quantity. With large doses of potassium iodide, however, the quantity could sometimes be reduced to 2400 cc. for a short period.

As to the probable cause of the paralysis of the bladder, there are two possibilities. This may have been the result of the polyuria, which gradually brought about an atonic condition of the bladder and complete loss of muscular force through increased tension. On the other hand, both the diabetes insipidus and the bladder paralysis may have been due to the same cause, viz., a lesion in the central nervous system. Local disturbances have often been found in diabetics, and in animals in which glycosuria had been experimentally produced by injury to the medulla. Hemiplegia, facial paralysis, trigeminus involvement, etc., have often been observed. Bladder disturbances, however, have not been reported.

Acute Pyopneumothorax in a Case of Incarcerated Diaphragmatic Hernia.—STRUPPLER (*Muenchener Medicinische Wochenschrift*, No. 15, 1902).—It is a well-known fact that certain pathological conditions in the abdomen may result in the development of a pyopneumothorax through continuity or contiguity of tissue, and through the lymph channels. The case here reported teaches that it is also possible for a certain anatomical peculiarity to result in the same. It shows that in incarcerated diaphragmatic hernia the bacteria may wander through the injured intestinal wall, producing an inflammation of the serous membranes; gases are produced through the action of bacteria, and thus, without perforation of either the intestines or the lungs, there results a pyopneumothorax.

The post-mortem in this case revealed the following: An incarcerated diaphragmatic hernia on the left side, containing the left knee of the colon and the greater omentum, fibrino-purulent pleurisy with pyopneumothorax. Compression atelectasis of the left lung and dextro-position of the heart. There was no perforation of the lung or intestine. The inflammatory process extended from the serous covering of the loop of intestine to the pleura.

The patient succumbed so rapidly after the first symptoms were noticed that careful diagnosis could not be made, though the conditions revealed by the post-mortem were suspected.

The Typhus Epidemic in Zarskoie-Selo in November, 1901.—UNTERBERGER (*St. Petersburger Medicinische Wochenschrift*, No. 17, 1902).—The year of 1901 was the driest that had been experienced since 1830. The water supply for Zarskoie-Selo is transmitted a long distance through a canal which is uncovered in one-half its extent. The daily water supply is about 1,500,000 gallons. Its source is the wells of Taitza. During the very dry season experienced last year the daily quantity of water was reduced to 600,000 gallons. It became necessary to connect other reservoirs with their present supply. This was done by means of a large ditch on October 30th. The water became very cloudy and remained so for almost a month. On November 2d there developed three cases of typhoid fever in the military barracks, which were near the water-tower. The number of cases rapidly increased in the city and reached their height about November 16th, when they began gradually to decline. The last case occurred on December 12th, there being one hundred and fifty-one all told. Inasmuch as there had been no cases of typhoid fever in the vicinity of the reservoirs or the canal to which this epidemic might have owed its origin, the author concludes that the germs must be constantly present in their soil, and that the rapid rush of the

water from the new supply stirred up the upper layers of the canal bottom which contained typhoid germs. One month after the beginning of the epidemic, the water was found to be free from the bacilli. This water had been known for its purity for a hundred years or more, and in all probability possesses ingredients which are detrimental to germ life. This may explain, too, the very short duration of the epidemic.

The Treatment of Ileus with Belladonna Derivatives.—HONIGMANN (*Centralblatt fuer die Grenzgebiete der Medizin und Chirurgie*, Nos. 7, 8, and 9, 1902) presents an exhaustive review of this subject with some fifty literature references. It is interesting to note that as far back as 1803, an enema containing belladonna was successfully used in a case of incarcerated hernia which could not be reduced. The article deals extensively with the history and development of this therapeutic measure, the theories concerning the action of atropin upon the intestines, clinical experience in the subcutaneous use of atropin in ileus, etc., etc.

In order to determine the true value of atropin it is necessary to study a large number of cases with reference to the following points: (1) What factors brought about the ileus in those cases that were cured by atropin? (2) What is the relationship in these cases between the cure and the remedy used? (3) What factors produced the ileus in those cases in which atropin failed? (4) Has the atropin manifested any harmful influences?

A careful review and summing up of the literature leads to the following conclusions:

1. In cases in which strangulation ileus is diagnosed, the atropin treatment is contraindicated. The same is true of incarcerated hernia.

2. In cases of obstructive ileus, as well as in dynamic and functional disturbances of the intestines, atropin is sometimes effective.

3. The action of belladonna preparations is chiefly sedative, as in opium. Whether they are capable of stimulating intestinal peristalsis has not been absolutely determined through clinical observations.

4. The sedative action of atropin often appears after small subcutaneous doses (½–1–2 mg.); sometimes, however, only after repeated large doses. Doses of 5 mg., as recommended by Botsch, should never be used in the beginning. It is best to learn the patient's tolerance for the drug by beginning with small doses (½–1 mg.).

5. Toxic symptoms of different intensities occur in most cases in the use of belladonna preparations, especially when the maximum dose is overstepped. Individuals over fifty more often present toxic symptoms, even after moderate doses, than young individuals after large doses. Special precautions must be taken in the administration of the drug to old people.

6. According to observations thus far made, atropin has no special advantage over opium, but, on the other hand, the disadvantage of unpleasant symptoms, often regardless of the dosage. These can become dangerous. Atropin should be used, therefore, only where opium fails.

7. If atropin does not relieve the ileus within two days (advent of flatus and stool), one must not be misled by the state of euphoria produced during its use, but should recommend the necessary surgical interference. When such is refused, or there are contraindications, atropin may be continued.

Observations Concerning the Extirpation of the Hypophysis Cerebri and the Transplantation of Carcinoma and Thyroid Gland into the Hypophysis.—FRIEDMAN (*Berliner Klinische Wochenschrift*, May 12, 1902).—In this article the author reiterates his earlier observations concerning the hypophysis cerebri, and adds the results of recent experiments upon cats. He has devised an operation for the removal of this organ which is both easy and certain. Adult cats from which

the hypophysis had been removed nine months previously showed upon post-mortem no ill-effects whatever as a result of the operation. There was complete ossification of the bony defect at the base of the skull, and the various organs of the body, including the thyroid gland, and the skeleton were in perfectly normal condition. He concluded, therefore, that "the hypophysis cerebri is certainly not a vital organ in an adult cat. If, indeed, it has any important function to perform, this must be carried out by some other organ after its (hypophysis) removal." It is hardly probable that this substitute is the thyroid gland, for in one case both hypophysis and thyroid were removed simultaneously. The animal remained perfectly well for twenty-three days when it died of pneumonia.

Von Bergmann maintains that while the loss of this organ does not interfere with the normal functions of the adult animal, it may produce disturbances in the development of young animals. The author's experiments led him to the conclusion that the hypophysis is neither necessary to the life or development of young animals.

Efforts to transplant carcinoma upon the hypophysis were not altogether satisfactory. Tissue from the thyroid gland, however, was successfully transplanted upon the hypophysis without losing its glandular structure.

Physiology and General Pathology of Vomiting.—JANOWSKI (*Sammlung Klinische Vortrage*, Volkman, No. 333, 1902) defines carefully what is meant by vomiting, and reviews in detail the physiology of the subject. He describes a series of experiments on dogs with a view to clearing up the role of the vagi in this connection. The causes of vomiting are numerous, and in order to be able to arrive at a prompt diagnosis in conditions accompanied by vomiting, it is necessary to classify these factors. The etiological classification of vomiting is presented as follows:

(*A*) *Vomiting of central origin.*

I. Vomiting due to intoxications (1) through substances produced by the organism itself, as in uremia; (2) through substances transmitted to the organism from without, such as alcohol, morphine, apomorphine, chloroform, snake venom, etc., or those produced by pathogenic organisms, as in scarlet fever, typhoid fever, diphtheria, etc.

II. Vomiting due to intoxication of the center, and pressure upon the same simultaneously, as in infectious disease of the brain (encephalitis, abscess, etc.) and the meninges.

III. Vomiting due to pressure upon the center alone, as in tumors of the cerebrum, or inflammatory and edematous conditions.

IV. Vomiting due to the variation of the blood supply to the brain, as in concussion of the brain, sea-sickness, insolation, Meniere's disease, occasionally in Basedow's disease, etc.

V. Vomiting due to psychic influences upon the center of vomiting, transmitted through the sense of smell, taste, etc.

(*B*) *Vomiting of reflex origin.*

Due to an irritation of the (1) base of the tongue, (2) pharynx, (3) larynx, (4) trachea, (5) bronchi, (6) lungs, (7) esophagus, or (8) stomach. The last named may be due to (*a*) diseases of the stomach, as ulcer, carcinoma, pyloric stenosis, hyperacidity, hypersecretion, dilatation, acute inflammation, chronic inflammation, nervous dyspepsia, etc., (*b*) emetics of all sorts; (9) diseases of the duodendum, (10) the intestines, (11) the bile ducts, (12) liver, (13) pancreas, (14) suprarenal capsules, (15) kidneys and ureters, (16) the uterus and its appendages, (17) inflammation of the peritoneum, (18) affections of certain nerves, as the vagi.

(*C*) *Vomiting of mixed origin.*

This form may, in different cases of the same disease, be at one time central in origin, at another reflex. In this list may be included the vomiting in hysteria, migrane, neurasthenia, poisoning by nicotine and alcohol, Basedow's disease, gastric crisis in organic disease of the spinal cord, chlorosis, anemia, acute tuberculosis, and rickets.

Peripheral Venous Thrombosis in Pneumonia, with Report of Three Cases and a Review of Those Previousiy Recorded.—STEINER (*Johns Hopkins Hospital Bulletin*, June, 1902).—In five hundred pneumonias observed at the Johns Hopkins Hospital but three cases of peripheral venous thrombosis were met with. In the first case there was pneumonia of both lungs, crisis on the ninth day, accompanying pleurisy of both sides; second attack of pneumonia seven days after the crisis, of five days' duration. Thrombosis of right popliteal vein occurred twenty-eight days after the crisis and six days after the termination of the second pneumonia attack; gradual recovery. In the second case thrombosis of the right internal saphenous vein occurred in the sixth day of the disease, and the patient died on the twelfth day. In the third case there was a thrombosis of the right popliteal vein six days after the patient's temperature became normal.

It is rather surprising that thrombosis is so rare in pneumonia, since, in this affection, the blood is rich in the elements necessary for clotting. Only thirty-eight other cases could be collected from the literature. The thrombosis occurred during convalescence in twenty-seven of these; in one it occurred on the day of the crisis, and in four during the course of the disease. It must be considered as a sequelæ, not as a complication of the disease. The lower extremities were always involved. As in typhoid fever, and other infectious diseases, the thrombi are found most often on the left femoral vein. The left extremity was alone concerned in sixteen cases, the right in ten, and both in seven. The more frequent involvement of the left is due to the more difficult return flow of the blood on this side in consequence of the greater length and obliquity of the left common iliac vein and its passage beneath the right common iliac artery.

SURGERY.

IN CHARGE OF

WILLARD BARTLETT, M. D.

The Forerunners and the Ultimate Causes of the Sudden Attack in Appendicitis.—RIEDEL (*Archiv fuer Klinische Chirurgie*, Bd. lxvi).—This article of one hundred and sixty-two pages contains more of scientific worth than any other which has been written upon this subject in recent times. The author does not deal with appendicitis as an entity, but separates sharply the various pathological pictures, and upon the pathological aspects of the matter builds up the various surgical working ideas. Two general divisions are made: the purulent and the non-purulent forms of the disease. The non-purulent may be of two kinds: (*a*) Due to the presence of a stone which does not erode the coats of the appendix, but which, by virtue of being putrid and in contact with the mucous membrane, can lead to trouble at any time. (*b*) Appendicitis granulosa is the other one of the non-purulent varieties; this is characterized by the production of granulation tissue beneath and between the tubular glands of the mucous membrane. The symptoms may be severe or very slight, and the process may eventuate in complete healing or the organ may become obliterated. With the naked eye nothing is to be seen as abnormal on the appendix, but the most

pronounced changes are seen with the microscope. There are no acute attacks, in the true sense of the word, but the affair is strictly chronic. A stone may be ejected from the appendix, and all the symptoms of disease subside; in so far we see a resemblance between affections of this organ and those of the gall-bladder, from which the author long ago pointed out that a stone may be thrown out and thus the disease brought to a close. (A so-termed successful spasm.) A polyp is likely to form around a stone or from the bed in which it lay, so it comes about that such a formation may be seen projecting from the appendix into the cecum. It is well known that a stricture may follow the inflammatory tissue changes which result from the presence of a stone; but a stricture may also follow the action of appendicitis granulosa, and either form is likely at any time to result in hydrops or empyema of the distal portion of the little organ. In the same way it is seen that partial obliteration, no matter how extensive, is no protection against disease; the author found a peri-appendiceal abscess, around a small dilated portion of an organ, the greater part of which had been obliterated.

Purulent appendicitis is a much more grave affair than the condition which has just been described. It is brought about by a predisposing local condition, as well as by a particularly severe form of infection. It must be divided into perforative and non-perforative forms, the former of which can always be regarded as caused by the more virulent organism. It is always a mild infective organism which wanders slowly through the lymphatics and leads to a peri-appendiceal abscess; the more virulent ones lead to gangrene of the organ in a short time. A great mistake is made by those who wait for severe symptoms before operating on a suppurative appendicitis case; the case may be as indicated without there being any severe manifestations; in fact, the author saw one in which the patient died without symptoms worthy of mention until the very last.

Where a stone is in the appendix, there are always adhesions outside the site long before there occurs a perforation, but unfortunately the escaping contents has the property of very soon dissolving such adhesions; hence if an operation be not done early, the free peritoneum is exposed to contamination. The indications of the attack are present before the perforation has occurred in every case. If then no operation has been done while the pus is still confined by the adhesions then the patient's life depends in great measure upon the position of his appendix.

As to the prognosis in a purulent case, one thing is of supreme importance, viz., the condition of the peritoneum; if it is chronically diseased then it absorbs badly, and consequently the patient is not so likely to be poisoned fatally; on the other hand, the normal membrane is highly sensitive and absorbs most readily, consequently renders the patient's chances worse.

Considerations on Late Laparotomy in the Course of Appendicitis.—TOUSSAINT (*Archives Provinciales de Chirurgie*, Tome xi, No. 4).—Twenty-two cases in point are presented by the author, who is a French army surgeon. Characteristic symptoms are not present when the abscess is behind the cecum, but experience will prevent one being deceived by this fact. When the pulse is above 100 an operation is generally necessary; during the same the abdomen is to be washed out with saline, and a hypodermic injection of the same is to be made. The ilio-cecal angle is to be caught between the thumb and finger, whereupon the appendix will be easily found. Rectal examination is of the greatest worth in many cases. An ulcer of the appendix (follicular) is just as sensitive as one of the stomach or intestines, hence the pain in many cases.

The Surgical Complications of Influenza.—RUHEMANN (*Centralblatt fuer die Grenzgebiete der Medizin und Chirurgie*, Bd. v, No. 9).—These may be divided into two classes: those caused by the influenza germ itself, and those caused by

other organisms whose activity is favored by it. There may be surgical complications of influenza, an influence of influenza upon operations or the appearance of the disease after an operation; hence, the subject must be studied from all these standpoints. The surgical diseases which it may produce in the respiratory apparatus are many and varied; in addition to these, empyema, liver abscess, hemorrhages into the kidney and abscesses of the same, hemorrhages under the skin and boils, synovitis, osteomyelitis, neuritis, and infective thrombosis of arteries and veins. Operations during the disease may turn out very badly; pyemia may occur with a perfectly healthy-looking wound for example. The disease is prone to attack those who are subjected to operations during the prevalence of an epidemic. The practical conclusion is to be drawn that no surgical procedure is to be attempted during convalescence from influenza, unless it be for a complication of that disease.

Resorbable or Residuary Abscess of Appendiceal Origin.—MAUCLAIRE (*Gazette des Hopitaux*, May 6, 1902).—The author illustrates by several of his cases the tendency of pus to become sterile in the course of time. This holds true around an appendix just as well as it does for the pus in a pyosalpynx. Sometimes the pus does not resorb, and these cases must be operated upon by reason of that fact. The treatment in an acute case must be to favor resorption, as in the interval the removal of the offending organ can be accomplished with much greater safety than at any other time. The paper contains nothing that is really new; the author's experience, however, demands serious consideration.

The Strength of the Abdominal Wall After a Laparotomy in Which Primary Suture or the Mikulicz Drainage is Employed.—PICHLER (*Beitraeg zur Klinischen Chirurgie*, Bd. lxiii, Hft. 1).—In making the suture referred to, no silk is used in the clinic of v. Mikulicz, since that material is a sort of drain made up of dead space, and is so likely to carry infection along itself. Silk-worm gut is the material used for buried sutures. It is less likely to be accompanied by pus even where it is extruded from the tissues after healing has taken place. The ligatures in the clinic are always of catgut, though the author does not tell us how the latter material is to be sterilized.

Just before an operation the skin is painted with iodine, in the hope of killing germs in the deeper tissue glands; the process is warmly advocated. The abdomen is closed in two layers, everything but the skin being embraced by the deeper one. Stitches are taken out on the tenth day, the patient raises up in bed two days later, and at the end of two weeks from the time of operation sits up. After forty-three primary sutures the author has to note four herniæ; a surprisingly large number we would term it in America. The surprisingly large number of 65.2 per cent. herniæ followed drainage. They had the greatest tendency to hernia where the suppuration was found to be most extensive; it would seem that the most highly diseased abdominal wall predisposing thus to it. Secondary sutures did no good in preventing post-operative hernia. An abdominal supporter should be worn after every drained case; it may not absolutely prevent a rupture, but will stop the increase of size. If a hernia occurs at all, it is usually in the first months after the operation.

The Autositic Double Monstrosities Which Have Been Operated Upon and Those Which Are Operable.—BAUDOUIN (*Revue de Chirurgie*, No. 5, 1902).—These have been subjected to operation for three reasons, viz., in obedience to a wish that they be separated, after one has become ill, or after one has died. From the resemblance of the figure to certain letters of the alphabet, they are called "H," "X," "Y," or "inverted Y" monsters. Certain of the "H" variety being alone operable. These are known as the "pages" or teratopages, and as they are at-

tached together, are called cephalic, pelvic, or abdomino-thoracic. Of the cephalic variety, three metapages survived their birth, one pair having been operated upon at the age of ten years, one twin being killed directly by the procedure. The cephalopages of this same variety are more complex in their attachment to each other, and are extremely rare. Five cases have been reported, and they may be called operable where their cerebrii are independent.

Of the pelvic variety, eight have been known, one living to the age of thirty-four years; one pair has been operated upon and with double fatality. The only one now on earth is in Berlin at the age of twenty-four. The operation is usually one of necessity, as so dangerous here, and the worst mutilation is to be borne by the twin whose impending death brought on the operation. The pelvic osphuopages are too intimately attached to make a separation possible; the only one known is now in the United States at the age of fifty-two years. The pelvic ischiopages are rarely viable, so of course inoperable; but one ever reached one year of age; ten have been reported in all; none are now living. No richipages were ever born alive. One ischioxipage lived three months, but was, as a matter of course, inoperable.

The abdomino-thoracic omphalopages are the most simple of all, as far as the operation goes, being simply united by the umbilical cord. Next come the xiphopages, of which fourteen have been known; one is now living at the age of seventeen, and is considered operable. Two were operated on in utero, and four have been separated after birth. Of these last four, one operation, performed in the seventeenth century, forms the only case in all the world's history where both twins survived the separation. In this case there were no visceral connections, as is also true of an operation done in 1860, one of the latter children being still alive. In the other two instances the livers were joined, and in one, both twins died, while the surgeon (Doyen) saved one of the other pair.

Of the thorocopages there is first the xiphothoracopage, in whose pedicle the pleura and pericardium take part together with transposition of the viscera. The first operation for this form of the abnormality was done in 1900, and one child lived. This is, by the way, the only known pair of its kind that ever survived the birth. It may be mentioned, in addition, that the livers in this instance were connected, too. In the typical thorocopages, so-called, the condition of the two hearts, and the amount of fusion of the two chests governs the operability of the given case. Nine such have been reported. The sternopages have but one heart for both, hence are inoperable, while the anatomy of the ectopages is so little known that nothing can be said of them.

This splendid article can only be appreciated if read in the original; no review can give more than an idea of its contents.

Gastro-Enterostomy Combined with Enterostomy, Made by the Use of the Elastic Ligature.—MEYER (*Centralblatt fuer Chirurgie*, No. 7, 1902).—Two successful cases are reported. The ligature had in one case a diameter of 2 mm. and in the other of 3 mm. The cutting ligature was surrounded by silk sutures in both cases, and seems to have done its work in an admirable manner. The folds, which are made in the walls of the hollow viscera are seen to smooth themselves out in about forty-eight hours. It is no disadvantage that the new opening is not complete before the expiration of four days, since rectal feeding can effectually take the place of the stomach for that time. This method is pronounced by Myer to be more simple and rapid than any other in use at the present time.

Studies in the Pathogenesis of Appendicitis.—KRAMER (*Annals of Surgery*, June, 1902).—The article is illustrated by several fine cuts of the microscopic appearance of normal and diseased appendices. The concretions which the author has found have been made up of mucous and epithelial cells. The follicles

may break down and form ulcers, just as in typhoid fever. Perforation of the appendix is most prone to take place on the side opposite the mesenteric insertion, since the blood supply is poorest at that point. The author reasons that the little organ has no peristaltic activity, after trying electrical stimulation in two cases on which he operated, and makes this a factor in the pathology of the subject. He has found the organ represented by a fibrous cord, at the operation, where pronounced symptoms had been present; the same disappearing immediately after the procedure.

Pylorus Stenosis in the Suckling Infant.—Trantenroth (*Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie*, Bd. ix, Hft. 4 und 5).—In the year 1897 two noteworthy events made this subject of interest; it was claimed that the disease is always spastic; and second, the first case was cured by operation. The author reports a case in which vomiting of milk was almost constant; the infant passed little feces and urine, going as long as a day and a half at a time without soiling itself. There was a tumor in the epigastrium as large as an egg (the stomach, no doubt), and increased peristalsis was present, but always stopped after the milk was vomited. The infant, which weighed eight and one-half pounds at birth, was down to six pounds on its thirty-ninth day, so an operation was determined upon. A thickening of the pylorus was plainly felt, but it was impossible to find its lumin, hence it could not be dilated. A gastro-enterostomy was performed and the child never vomited again; urine and stool were now present in normal quantity, and in three months four pounds had been gained. The intervals between attacks indicate that the affair is spasmodic, while an organic stenosis may become absolute. The spasmodic form requires medical treatment, while surgical intervention is alone able to help one afflicted by the organic. Gastro-enterostomy is the best operation; dilatation can be of lasting avail in none but the spastic; and pyloriplasty, tried once, had to be followed by the procedure first named.

Diseases of the Mesenteric Lymphatics in Acute Appendicitis.—Quenu (*Bulletins et Memoires de la Societe de Chirurgie de Paris*, Tome xxviii, No. 17).—The avowed intention of this article is to deal particularly with the diagnosis of suppurative and gangrenous appendicitis. The gangrenous form of the disease is regarded as the most serious of all, decidedly more so than the simple perforative. It may be that one finds a case in which the symptoms are serious; on opening the abdomen there is found (aside from the appendix) little wrong except a great increase in the size of the lymphatic nodes at the junction of the calcum and ilium. It is very likely that these same nodes, their position being fixed, occasion the pain which is so constant at McBurney's point; the appendix is so variable that it could not account for this in all cases. Patients with diarrhea have this symptom because of poison circulating in these lymphatics, and are to be operated upon during the first day if possible.

Spina Bifida.—Bockenheimer (*Archiv fuer Klinische Chirurgie*, Bd. lxv, Hft. 3).—There are three varieties of the disease, anatomically speaking, the myelocele, the myelocystocele and the meningocele. Of these the first mentioned is the most common and originates in the following manner: There is complete closure of the canala centralis of the cord, as well as non-union of the structures which should cover the cord behind. In addition to this, there begins a hydrops in front of the cord, and the same is spread out and forced out of the posterior opening in the form of a sac wall. A myelocele has three zones commencing at the periphery, as follows: Zona dermatica, covered with long hair and consisting of all the epiblastic as well as mesoblastic derivatives; zona epithelio-serosa, consisting of the piamater and epithelium from the surrounding skin; zona medulo-vasculosa, representing the spread-out and degener-

ated cord. At the upper and lower poles of the tumor can be seen the cranial and caudal extremities of the interrupted central canal, and from them cerebrospinal fluid often escapes. The medulla is of course exposed to all sorts of insults as well as constantly injured by being stretched over the hydrops fluid. Where the fluid is within the arachnoid the spinal nerves run free through the sack and can be seen as shadows upon the same being illuminated; but when the fluid is outside the arachnoid, then the nerves run in the wall of the sac and can often, along with the cord, be made out on inspection of the tumor. The motor nerves are stretched the most and are the smallest, so least resistant, hence motor disturbances are commoner than those of sensatory nature; trophic changes, too, are common, as bed-sores illustrate. Umbilical hernia and hydrocephalus are prone to accompany this form of the anomaly, while the greatest dangers to the patient's life are bursting of the sac and meningitis in consequence of infection.

In myelocystocele the cord has closed around the central canal, but the mesoblastic derivatives have not completed their union. Then occurs a dilatation of the central canal, and in consequence of the unusual opening, as well as of the bony canal being too short, the sac herniates. The nerves take their usual course, hence the posterior are stretched more than the anterior, and sensory disturbances are here more common than those of motor nature. Hydrocephalus is common, but commences after birth, and the child is better developed and stronger than one afflicted by myelocele. There is usually fat covering the sac, but the same can be replaced, the pressure thus produced causing a wave to be felt at the greater fontanella.

The meningocele is the rarest of all three; it is entirely outside the cord, and is the consequence of imperfect closure of bony and dural coverings. The hydrops fluid, which produces the herniation of the sac, may be within or outside the arachnoid. The tumor is usually pedunculated and the bone opening small. It cannot be compressed, and there are no accompanying deformities.

A diagnosis of the exact form of spina bifida existing in a given case may not always be possible, though the observer will be aided by giving attention to the following points: The myelocele has its three zones, presents functional disturbances as a rule, and is present in imperfect subjects. The myelocystocele is small, has its bone opening to one side as a rule, and can be compressed within the canal of the column. The meningocele has a small bone opening, is pedunculated, is on the sacrum, shows no accompanying deformities.

In all three forms an operation is to be performed where there is no hydrocephalus and no functional disturbance, or the tumor may burst; but in case this does not occur, functional trouble may arise at a later date. In the myelocele the zona epithelio-serosa is to be excised and the cord replaced in the canal, while in the other two forms the wall of the sac may be simply excised, though this would be certainly fatal in a myelocele, as experience has repeatedly proven. After this a plastic closure of the opening is to be made.

During the past twenty years sixty-three spinæ bifidæ have been treated by v. Bergmann. Of these there were thirty-four myeloceles, twenty-four myelocystoceles and five meningoceles. Eight myeloceles were operated upon and five died. Out of nine myelocystoceles which were operated upon, seven were cured. Three meningoceles were thus treated and all cured.

Apropos of Appendicitis.—PICQUE (*Le Progres Medical*, May 24, 1902).—The question as far as recurrent appendicitis in the interval is settled; everyone operates after some two attacks. The author, in writing of acute appendicitis, deplores the fact that he has seen so many patients die of general peritonitis in consequence of the man in charge abstaining from early operation, and attempts to establish a rule for the treatment of these cases, too. He would operate in every case in which the patient could not be improved by twenty-fours of med-

ical treatment. So it is seen that he is not disposed to be too one-sided. The anatomical distinctions are not of as great importance as they would be if clinical manifestations could inform us as to which patients can recover and which cannot; hence one must interfere early, as stated above. Why not apply to appendicitis the ordinary rules which would guide the surgeon in other suppurative affections of the abdomen?

THERAPEUTICS.

IN CHARGE OF

ALBERT E. TAUSSIG, M. D.

Orexine in the Vomiting of Pregnancy.—LUDWIG PICK (*Samml. Klin. Vortr.*, 1902, Nos. 325 and 326).—By "hyperemesis gravidarum" is meant not the almost physiological vomiting that is so frequently observed early in pregnancy, and that ceases of its own accord about the fourth month, but that unappeasable vomiting which extends into the second half of pregnancy or even to full term. This is a serious complication, which occasionally endangers the woman's life, and which has often been made the ground for inducing premature labor.

In his monograph Pick reports *in extenso* twenty-two such cases, all observed in the University clinic at Vienna under Prof. Schauta. All the cases were taken into the hospital, and strict rest in bed and a milk diet were enjoined. In some of the lighter cases, following the advice of Prof. Frommel, 5 grs. orexine were administered three times daily. However we may explain the action of this drug, the results (according to Pick) were exceedingly satisfactory. In one very severe and obstinate case the drug was given per rectum. After three days the vomiting ceased; four days later, in spite of the cessation of treatment, the patient could again take solid food; a week later she was discharged cured.

The Use of Potassium Nitrate and Nitrite in Arterial Sclerosis.—Sir LAUDER BRUNTON (*Deutsche Med. Wochenschr.*, 1902, No. 16).—As the arteries grow old and lose their elasticity they offer an increased resistance to the blood current. As a result of this increased resistance the heart tends to become hypertrophied, and in consequence of these two circumstances (cardiac hypertrophy and increased peripheral resistance) the blood pressure in the arteries rises as old age comes on. The excessive blood pressure may produce cerebral or cardiac disturbances. In the heart they often show themselves as angina pectoris, in the brain as paralysis. The diminution of blood pressure in such cases is accordingly of the greatest importance. In cases in which the increased tension causes thoracic and cardiac disturbance (*e. g.*, angina pectoris), the blood pressure may be rapidly and greatly, though only temporarily, lowered by means of drugs such as nitroglycerin or amyl nitrite. Nitro-erythrol (gr. ss. t. i. d.) produces the same effect, more slowly but of longer duration. The long-continued administration of this drug can make patients, who have been almost constantly suffering from angina pectoris, perfectly comfortable. None of these drugs, however, are indicated when we wish to avoid rupture of a cerebral vessel and the resulting paralysis. For this purpose we require a medicament which acts more slowly, less powerfully but more permanently. Such a drug is potassium nitrate (saltpeter), which may be prescribed as follows: potassium bicarbonate thirty grains, potassium nitrate twenty grains, sodium nitrite one-half grain, in a large tumblerful of water every morning. This treatment may be continued for a long time. The potassium salts, when given in large doses, act as cardiac depressants. This action is however probably rather beneficial than deleterious in cases of

excessive blood pressure where we desire a double effect: firstly, to diminish the activity of the hypertrophied heart, and, secondly, to increase the permeability of the sclerosed arteries, thereby diminished the pressure both at the cardiac and the peripheral end of the circulation. All the nitrites have the power of dilating the small arteries and so of reducing the blood pressure. Leach has shown that the nitrates have the same power; they act more slowly and more feebly, but, on the other hand, their effect endures longer. The combination of nitrates and nitrites offers the advantages of each and moreover stimulates the renal activity. While the nature of the process is as yet not quite clear, there can be no doubt that in the senile body substances are found that exert a stimulus upon the arterial muscularis and produce a contraction of the arterioles. This action may be effectively combated by the treatment outlined above. In nephritis, and especially in the gouty kidney, this treatment is particularly effective. If begun early before the appearance of albuminuria and before the patient begins to urinate at night, when nothing abnormal can be found but the arterial sclerosis and the accentuated second aortic sound, life may be considerably prolonged and attacks of angina pectoris or paralysis may be prevented for many years. The author accordingly advises the use of bicarbonate and nitrate of potash together with small dose of nitrate of soda in all cases of high arterial tension especially when associated with gouty kidneys.

The Treatment of Chronic Diarrhea.—M. Soupalt (*Soc. de Therap.*, March, 1902).—In a very interesting article Soupalt discusses the nature and treatment of idiopathic chronic diarrhea. The disease is due neither to any important anatomical alteration nor to an infection. It is characterized by frequent liquid stools accompanied by meteorism and colicky pains. There are often gastric disturbances of greater or less severity. The disease is exceedingly chronic, often lasting many years. It is usually accompanied by a reduced or abolished acidity of the gastric juice and is probably due to the premature passage of the stomach contents into the duodenum, characteristic of this condition. As large doses of hydrochloric acid have the power of contracting the pylorus and of retarding the expulsion of the gastric contents, the author was led to use the remedy in this condition, as it appears, with very satisfactory results. He gives fifteen to thirty drops daily of the strong acid, preferably as a sweetened lemonade, before meals. Some patients require more, some less. When the proper dose has been ascertained the results are usually prompt. The patients show a distinct improvement within a week, and a permanent cure results in a reasonable time. Proper dietary and hygienic measures greatly increase the efficiency of the treatment.

PATHOLOGY AND BACTERIOLOGY.

IN CHARGE OF

R. B. H. Gradwohl, M. D.

The Analogies Between Plimmer's Bodies and Certain Structures Found Normally in the Cytoplasm.—E. R. Le Count (*The Journal of Medical Research*, May, 1902).—Le Count believes that there are analogies between Plimmer's bodies in cancer cells and certain structures in the cytoplasm of normal cells. He has made use of sublimate solutions for fixation purposes in studying cancer cells met within axillary nodes removed in connection with mammary carcinoma. He found typical Plimmer's bodies in these lymph glands, possessing single or double and distinct capsules with a more faintly staining zone between the cap-

sule and the so-called nucleus. With Borrel's method the encapsulating zone stained more readily than with the hematoxylin and iron method. Two or more of the so-called parasites were often seen in a single cell. He states that he has never seen a Plimmer's body in such a position that it could be safely stated that it was extra-cellular. Carcinoma cells are large cells and in serial sections; a single dividing nucleus often appears in two or more sections; therefore, apparently extra-cellular parasites might belong to cells, a large part of which were to be found in other sections; nor were Plimmer's bodies seen in other than epithelial cells. There are strong analogies between Plimmer's bodies and the archoplasmic elements of normal cells, not only in their discovery by similar technical methods, but also in their position. Besides, the sporulation or multiplication of the cancer parasite, by budding, is comparable to the division of the centrosome by simple cleavage. The archoplasmic structures described by Heidenhain in the giant cells of a mesenteric lymph gland of a young rabbit that died with a diarrhea contained many central bodies that are very comparable to forms described as Plimmer's bodies. The rayed periphery sometimes observed in Plimmer's bodies reminds one forcibly that the astral fibers of the archoplasm converge at the margins of the centrosome.

Le Count in conclusion says that enthusiastic advocates of the parasitic theory of cancer who use Plimmer's bodies in support of their views should be required to exclude or account for the centrosome and the enveloping variously named formations of the archoplasm in carcinoma cells.

Angina Due to the Bacillus of Friedlander.—CHARLES NICOLLE and A. HEBERT (*La Presse Medicale*, May 31, 1902).—The publication by Descos in *La Presse Medicale* of his work with the bacillus of Friedlander as the cause of anginas is identical with the first observations made along this line by Nicolle and Hebert, first in *Annales de l'Institut Pasteur* and later in *La Presse Medicale*. Together with the cases reported by Billet and Mayer, to date there have been reported twenty-two cases of angina due to the bacillus of Friedlander.

A recent case is reported by Nicolle and Hebert: a twelve-year-old daughter of a brother physician became ill with a pseudo-membranous affection of the tonsil. Examination showed a whitish, diphtheritic-like membrane on the right tonsil, with a height of six to seven millimeters and a width of from 4 to 5 mm. This membrane was adherent intimately to the underlying submucosa. Outside of the pharyngeal discomfort referable to the presence of the false membrane on the tonsil, the child suffered no marked discomfort; there was no fever, there was a normal pulse, no eruption and a good appetite. Diagnosis of angina, due to the pneumo-bacillus, was made. Direct examination of the false membrane with cultures on blood serum confirmed this diagnosis—*i. e.*, the encapsulated bacillus of Friedlander. The membrane disappeared after a few weeks, no decided symptoms having appeared during the whole period of illness.

This observation demonstrates the two characteristics which we have already pointed out as accompaniments of a bacillus Friedlander angina—*i. e.*, they are benign and tenacious. Prognosis is good in these cases.

The bacillus of Friedlander is not a normal inhabitant of the mouth even as a harmless saprophyte. It was found by Netter in but nine instances out of one hundred and five examinations. Nicolle and Hebert examined 3,670 pharyngeal exudates and found it but twenty-four times. In the eleven reported cases it was the principal factor in the production of a disease; in the other cases it was a harmless saprophyte.

A Preliminary Note Upon Certain Mechanical Microtechnical Factors Concerned in Producing Segmentation and Fragmentation of the Myocardium.—WALTER H. BUHLIG (*The Journal of Medical Research*, May, 1902).—The object of the investigation was to determine in how far the microscopic appearances designated "Segmentation and Fragmentation of the Myocardium" were the result of artifi-

cial conditions. It was assumed that these appearances were in reality artefacts produced principally by mechanical factors. The writer is now in a position to state that this explains many of the supposed cases of fragmentation of the myocardium. Later investigation may enable him to make the sweeping assertion that a diagnosis based upon the microscopic appearances of sections of cardiac tissue is erroneous in all cases.

The heart of a dog was used, also the apparently normal human heart and the evidently diseased human heart, the hearts of rabbits and dogs. Various methods of fixation were employed: Zenker's fluid, formalin, Bensley's fluid, Flemming's, Carnoy's chloroform acetic acid alcohol mixture. Infiltration and imbedding in celloidin and paraffin were performed. Several microtomes were used: the Automatic Precision Microtome of Minot, the Minot-Zimmermann Automatic Rotary Microtome, the Bausch and Lomb Student Microtome and the large sliding microtome of Leitz. A number of different microtome knives were used. Ordinary hematoxylin-eosin staining was mostly used.

In the series of experiments prosecuted it was found possible to reproduce most of the pictures usually described both as segmentation and fragmentation of the myocardium, the only exception being the most extreme examples of general segmentation seen in some human hearts. The so-called "focal segmentation" could be invariably reproduced. The factors concerned in producing these artefacts are as follows:

Imperfections of the knife edge: even though a microtome blade to the naked eye may appear smooth and even, microscopic examination with a lense of low power will always show a wavy line of unevenness. No knife can be made to have a perfectly smooth and perfect microscopic edge. The rough edge of the knife is regarded by Buhlig as the chief causative agent in the artificial production of segmentation and fragmentation.

Direction of the Section.—This goes hand in hand with the edge of the knife. By direction of section is meant the angle made by the two lines, one represented by the direction of the cut, or the "pull" of the object; the other by the long axis of the heart muscle fibers. An angle of approximately thirty degrees was most favorable for the production of the artefacts.

Factors of secondary importance were: (1) Reagents used in treating the tissue—tissue fixed in Carnoy's mixture seemed especially suitable for producing these artefacts. (2) Nature and consistency of the imbedding mass: sections cut in paraffin and celloidin show an equal degree of segmentation, so these agents give constant equal results. (3) Knife and object vibration: curious dark spots were observed arranged transversely to the long axis of the heart cells, in section cut from material fixed in Carnoy's mixture. These spots represent accumulations of heart muscle fragments, which might have been pushed or piled up. These striations represent vibration of the knife or object, or both, and closely simulate cement lines in places. (4) Knife tilt: with the knife tilted somewhat more than usual, the sections cut less readily and seem more broken up. The full significance of this factor is not yet determined. (5) Thickness of section: thin sections are more favorable for the appearance of these artefacts for two reasons: *first*, there will be less tissue to hold together; *secondly*, small imperfections in the sections will be more easily perceived. (6) Knife slant: nothing conclusive in this regard has as yet been determined. Suspected factors which were apparently excluded were the make of knife, the method of section affixing (to slide) and mounting, and the rapidity of section.

The work of Buhlig is certainly important, inasmuch as it calls attention to the fact that what has been written about so much in the past few years as an "agonal" change in the heart just prior to death is not really a pathologic change at all, but merely an artefact. Perhaps, as he says in the beginning of the article, segmentation and fragmentation of the heart does not exist as a pathologic entity.

GYNECOLOGY AND OBSTETRICS.

IN CHARGE OF

HUGO EHRENFEST, M. D.

A Secondary Adenoma of the Ovary.—RICHARD SAUTER (*Monatschr. fuer Geb. und Gyn.*, December, 1901).—The author reports the following case: A patient, sixty one years old, was admitted to the hospital with severe pain in the abdomen, especially on the right side. To the right and behind the uterus a tumor was felt. It was the size of an orange, fixed to the pelvic wall and distinctly differentiated from the uterus. Diagnosis of carcinoma ovarii dextri was made. Laparotomy. A pedunculated tumor corresponding to the right ovary was removed. In the lower part of the ileum a little tumor was found which partly occluded the lumen of the intestine; therefore an entero-anastomosis was performed. Small nodules were seen scattered over the peritoneal cover of the extremely dilated intestines. Patient died twelve days after the operation. Microscopical examination of both ovaries revealed adenoma. The intestinal tumor was found to be a malignant adenoma. Considering the extreme rarity of primary adenoma of the ovary, the author is inclined to pronounce the ovarian tumor a metastasis of the intestinal tumor. He emphasizes the clinical importance of this observation, because the secondary tumor was the larger one and kept a more prominent position in the symptomatology of the case. In his opinion the ovaries were affected by direct implantation from the diseased peritoneum.

Demonstration of a Small Metastatic Ovarian Carcinoma in a Case of Primary Carcinoma of the Pylorus.—GOTTSCHALK (*Zeitschr. fuer Geb. und Gyn.*, vol. xlvi, p. 474, 1901).—Patient, twenty-eight years old, was sent for gynecological examination by a colleague who had failed in treating indistinct stomach troubles of the patient. A small hard nodule was felt attached to the right ovary; some other nodules were found in Douglas' pouch. On account of the formation of the tumor and its hardness, a diagnosis of carcinoma of the ovary was made and operation decided upon. Incision through the posterior fornix. When the peritoneal cavity was opened a small quantity of bloody ascitic fluid emptied. The right ovary and the small tumors lying in front of the rectum were extirpated. Patient felt, after the operation, so well that she escaped from the hospital five days after operation. Several weeks later she was admitted to another hospital, emaciated, with considerable ascites. She died. At the necroscopy a primary carcinoma of the pylorus was found, with metastases in the liver, in the abdominal lymph glands, and scattered all over the peritoneum.

On the Apparently Primary, in Reality Secondary, Formation of Cancer in the Internal Genitalia in Cases of Tumorfaction in Other Abdominal Organs.—C. ROEMER (*Arch. fuer Gyn.*, vol. 66, p. 144, 1902).—The author reports two cases of carcinoma of the stomach, with formation of metastases in the ovaries. In both cases metastases were found in the uterus; in one also in the tubes. Based upon a very minute microscopical examination of the specimens, and a consideration of similar cases recorded in literature, Roemer concludes that in both cases the primary cancer of the stomach first led to the formation of metastases in the peritoneum. The latter infected the ovaries by direct implantation. From there the cancer was disseminated by way of the lymphatics in the one case into the substance of the uterus, in the other case into the uterus, broad ligaments and tubes. The probability of the direct infection of the ovaries by means of dis-

seminated cancer particles is proven by the fact that in these cases usually a great number of small metastases are found in the cul-de-sac. The practical conclusion to be drawn from this occurrence, which is by no means rare, is that every operator who is called upon to extirpate an apparently uncomplicated ovarian cancer will have first to search carefully for tumors in other abdominal organs.

[An abstract of an article entitled "The Formation of Metastases in the Ovaries in Cases of Primary Carcinoma of Other Abdominal Organs," by E. Kraus, can be found in the February number of this journal, p. 94.—Ed.]

On Metastatic Ovarian Carcinoma in Cases of Carcinoma of the Stomach, Intestines and Other Abdominal Organs.—F. Schlagenhaufer (*Monatschr. fuer Geb. und Gyn. Ergaenzungsheft*, 1902).—In this essay the histories of eight cases are given, in which in the same patient carcinoma of the stomach and carcinoma of the ovaries was found. In all these cases the author was able to prove that both carcinomas were of the same type, and in all eight instances, both from the clinical symptomatology and the pathologic-anatomic findings, the fact was established that the primary seat of the cancer was the stomach, the tumors in the ovaries being metastases.

Including these eight cases, there are now seventy-nine unimpeachable cases on record of formation of metastases in both ovaries in cases of cancer of the stomach, intestines or other abdominal organs, in sixty-one of which the stomach was the primarily affected organ. From a careful study of all these cases, and the literature of this subject, the author arrives at the following conclusions: A great part of bilateral, in most instances solid, ovarian tumors are carcinoma and are of metastatic origin. The cases of so-called combination of malignant ovarian tumors, with tumors of the stomach, intestines or other abdominal organs, are to be considered as metastases and primary tumors. If mamma, uterus and vagina can be excluded, the primary tumor is to be looked for in the stomach, intestines or bile ducts. The histological character of these metastatic ovarian tumors is varying according to the character of the primary cancer. A confusion with endotheliomas and Krukenberg's tumor is possible. In every case of bilateral solid ovarian tumor a careful examination should be made of all the abdominal organs, especially of the stomach. Vomiting and ascites are in these cases symptoms of considerable importance.

Small Cystic Degeneration of the Ovaries in Its Relation to the So-Called Hydrops Folliculi.—C. von Kahlden (*Ziegler's Beitraege zur Path. Anatomie*, vol. xxxi).—A careful microscopical study of a great number of small cystic degenerated ovaries led the author to the conclusion that this condition is the outcome of two distinctly different pathological processes. In one part of the cases, in conformity with the generally prevailing view, the condition was found due to the formation of hydrops in unruptured follicles. In a great number of cases, however, the author succeeded in proving that the small cysts had developed in new-formed adenomas. He observed the incursion of solid masses of the germinal epithelium into the stroma of the ovary. These epithelial cones soon became hollow and filled with a cystic fluid. The process may be well defined as a benign form of multiple adenocystoma.

The results of Kahlden's investigation bring about a better understanding of the etiology and pathological anatomy of the so-called hydrops folliculi, regarding which there is still prevailing a considerable dissension of opinion.

Involvement of the Ovaries in Epidemic Mumps.—J. V. Troitzky (*Russkii Vratsch*, St. Petersburg, April, 1902; *Rev. Jour. A. M. A.*, May 31, 1902).—The author found that the genital glands were affected by the mumps infection in

thirteen out of thirty-three little patients. The region of the ovaries was sensitive to pressure and more or less painful, and he suggests that possibly mumps may be responsible for some of the pathologic changes observed in the ovaries in later life. He recommends that the region should be investigated in girls suffering from the mumps and local measures applied at once at the slightest symptom of inflammation of the ovaries or their environment. By warding off or dispelling inflammation in the early stage we can safely assume that the ovaries will pass unscathed through the disease.

Microscopical Examination of Uterine Scrapings.—Van der Hoeven (*Centralbl. fuer Gyn.*, May 31, 1902).—In a report before the Netherland Gynecological Society the author gives the very interesting and instructive results of three hundred and eighty-one microscopical examinations of uterine scrapings. There were one hundred and five curettments after abortion, one hundred and thirty-five for diagnostic and one hundred and forty-one for therapeutic purposes. In the first mentioned one hundred and five curettments after abortion deciduoma was detected unexpectedly in two instances. In the one hundred and thirty-five scrapings examined for diagnostic purposes, deciduoma was sought for eight times; it was found three times, besides once unexpectedly, making a total of six deciduomas in three hundred and eighty-one examinations. Tuberculosis was sought for twice; it was found in one case unexpectedly. In one hundred and twenty-five cases of suspected carcinoma, epithelioma was found three times, carcinoma glandulare five times, sarcoma twice, suspicious adenoma three times, making a total of ten malignant cases in one hundred and twenty-five examinations.

In the one hundred and forty-one curettments for therapeutic purposes, in one instance a deciduoma was detected, in another a tuberculosis.

ORTHOPEDICS.

IN CHARGE OF

MALVERN B. CLOPTON, M. D.

Absence of the Trapezius as a Cause of Congenital Elevation of the Scapula.—W. Kausch (*Mitteilungen a. d. Grenzgebieten der Med. und Chir.*, Band ix, Hft. 3).—The series observed were five cases, in three of which the defect was unilateral, only the upper portion of the trapezius remaining; in two cases the deformity was bilateral, one of these latter showing a remnant of the upper segment of the muscle on each side and the other an entire absence on one side, while the middle portion of the trapezius remained on the opposite side. As the upper portion of the trapezius is so placed that it can produce the deformity, the author believes that as in all other paralytic deformities from overbalance of muscular power, so in the shoulder the scapula is drawn up by the remnant of the trapezius. This defect of muscle has been noted before but never considered as a cause of the deformity.

The scapula is frequently deformed in its outline, and the upper angle is often tilted forward. Exostoses occur along the posterior border in twenty-five per cent. of cases. Scoliosis is present in all the reported cases. Operation was done on one of these five cases by dividing all of the structures that bind the posterior border of the scapula, replacing the misplaced bone. The result after two years was worse than the original deformity, and the shoulder could not be used as freely as previous to operation. The treatment recommended is gymnastics and massage, with a jacket that holds the scapula in place.

Unnoticed Fractures in Children.—F. T. Cotton and R. H. Vose, Boston (*Boston Medical and Surgical Journal*, cxlvi, No. 2).—The cases tabulated are those which may be readily overlooked because of relative absence of symptoms, when the diagnosis could only be made by the use of the X-ray. In children, fractures show disproportionately little pain or reaction, which is hard to explain, and this is true not only of greenstick, but also of complete fractures. There is usually some difference in the use of the limb, apart from pain, and some reflex muscle spasm. After weeks it is likely to show a small ring like callus and local tenderness. They may be one of cases of "sub-periosteal" fractures, when crepitus at times can be elicited. Ten cases of unrecognized clavicular fractures, two of the forearm, two of the tibia, one of the fibula, three of the metatarsal bones, are given.

Pneumococcus Arthritis, with Notes of Seven Cases.—Nathan Raw (*British Medical Journal*, 1901, vol. ii, pp. 1803–4).—As the pneumonia is only one of the manifestations of the blood-born pneumococcus infection, it is understood that other lesions are just as important, and some of these, particularly the simple synovitis or violent purulent arthritis, demand immediate surgical treatment. Out of eight hundred and seventeen cases of acute pneumonia, seven cases were complicated with arthritis, six were suppurative and one serous; four patients recovered, three died. The pneumonias and joints involved were all right-sided. The knee was affected three times, the shoulder twice, the sterno-clavicular joints twice, and the ankle in one of the latter cases. The joint affection may precede the lung symptoms or follow the crisis. The treatment is early evacuation which was followed in all cases.

Three Cases of Paralysis of the Serratus Magnus and the Trapezius—Alæ Scapula.—Aug. A. Esher, M. D. (*Journal A. M. A.*, February 1, 1902).—The cases include one in which, after an operation in the Trendelenburg position, the patient developed a paralysis of the trapezius and partial loss of function of the serratus on the right side. The scapula was displaced inward and backward—"winged"—and there was great difficulty in bringing the shoulder and arm toward the head or opposite side. The condition was considered to be due to inflammation of branches of the spinal accessory or of the cervical plexus and the long thoracic.

The second case was in an hysterical man with torticollis, who, on two occasions, had his spinal accessory operated. In this patient the trapezius and spinal accessory were paralyzed, as well as the sterno-mastoid. The deformity was hardly as great as in the first case.

The third case of the series was one of deformity of the scapula following diphtheria. This bone stood off from the chest when the shoulder was elevated. There was inability to lift or carry weights. The trapezius and probably the serratus were paretic. The nerve supply of these muscles is thoroughly discussed.

The Effect of Footwear Upon the Form and Usefulness of the Foot.—Phil Hoffman (*Courier of Medicine*, June and July, 1902).—The writer calls attention to the common practice of toeing out, which is faulty, and urges the correct position of direct forward pointing of the great toe and foot as that of the greatest mechanical efficiency. When the foot is pointed outward the foot becomes everted, the strain falls on the ligaments, and the arch is lowered. In the statuary of the ancients, in sandal or moccasin-wearing races and in young children, the foot is carried directly in front, the space across the toes is broad, and each digit is separated from the others, and the inner border of the foot is a straight line. Shoes deform, particularly, by crowding the toes, causing overlapping, hallux valgus, ingrowing nails and hammer toe. High heels lead to the short-

ening of the calf-muscles, which, preventing full dorso-flexion in the straight walk, compels pronation and subsequent breaking down of the bone arch, and if combined with narrow toes may, by throwing additional weight on the metatarsal heads, break down the anterior arch, metatarsalgia subvening. Tight shoes, by splinting the feet, interfere with the normal muscular activity. Ill-fitting and deforming shoes are not always the direct source of pain which makes them dangerous. The shoe is what is admired and not the foot, and custom has dictated a faulty shoe. The article is fully illustrated with excellent cuts and many important points in footwear are brought out.

PEDIATRICS.

IN CHARGE OF

ALFRED FRIEDLANDER, M. D.

The Treatment of Summer Diarrhea.—C. G. KERLEY (*Archives of Pediatrics*, June, 1902) points out that in these cases we have to do with an infection, a poisoned child. The first indication is therefore to remove as much of the intestinal contents as possible. For this purpose, castor oil (or broken doses of calomel frequently repeated, if there be vomiting), should be given.

The greatest number of cases of this sort occurs in children under two years of age, who take milk in some form. Regardless of the source of the milk or its treatment, it must be stopped at once, because milk offers a favorable putrefactive medium for the growth of the bacteria causing the disease. This applies even to breast-fed babies, though here, as a rule, the milk need not be withdrawn for so long a period as in the case of artificially fed babies.

For substitute feeding the author prefers a carbohydrate diet. A tablespoonful of Robinson's barley to the pint of water, boiled for one-half hour, or an equal quantity of whole rice, boiled for three hours, will make an acceptable food. For older children the proportion of cereal may be increased. In addition small quantities of chicken, beef and mutton broth may be given to advantage. The author does not believe in the routine administration of alcohol. He has practically abandoned the use of egg albumen water, because it is so often not digested. Boiled water is given at any time. If possible the substitute diet should be given at such times and in such quantities as the child takes of milk in health. Frequent spongings are of value, and there should be an abundance of fresh air. Of drugs, besides those mentioned, the author prefers the subnitrate of bismuth. In order to be of service the sulphide of bismuth must be formed, producing black stools. At times it is necessary to add lac sulphur (in one grain doses) to the bismuth. Opium, though of service, should be used with caution. It is indicated when the stools are eight to ten in number, and large and watery. It is given preferably in the form of Dover's powder, one-fourth to one-half grain every two or three hours for a child of one year. If heart stimulants are necessary, strychnia and strophanthus are employed.

Irrigation of the colon with normal salt solution is of value when the stools are infrequent and contain much mucus and blood. In the algid cases, with extreme prostration, an irrigation of hot salt solution (110°) is a decided stimulant.

The return to milk food should be gradual, using milk diluted with barley water, and no milk is to be given till the temperature falls and the stools approximate the normal.

A Contribution to the Subject of Infant Feeding.—DESSAU (*Medical News*, May 31, 1902).—He reviews the modern methods of infant feeding, calls attention to the fact that in attempting to obtain a substitute for human milk, we should seek to benefit the masses and not the classes alone.

Therefore the method of modification advised should be within the reach of the purse and the intellect of the masses of the community. He denies that the physiological process of digestion and assimilation can ever be reduced to the exactness of a mathematical calculation.

He is of the opinion that the best of all foods for the human infant, during the first year of life, is human milk.

And he believes that the profession should make every effort to have mothers nurse their offspring, or provide a wet nurse when one can reasonably be afforded.

If a substitute must be used, he prefers cow's milk, diluted with water, according to age and digestive capacity of the infant. Sometimes, not always, he uses the "top milk." A pinch of salt and a heaping teaspoonful of raw cane sugar to the quart are added. The mixture is placed in a double cooker, with cold water in the outer vessel, and allowed to remain on the fire for ten minutes after the water has begun to boil (virtual Pasteurization). Ordinarily for infants under three months of age, he uses equal parts of water and milk; for older children, one part of water to three of milk. Gruels may be used as diluents, if they have been previously dextrinized.

The use of the gruels as diluents is particularly indicated for short periods after attacks of intestinal disturbance.

The author claims excellent results for the method, and insists that it is just as scientific as the theory "that a fac-simile of human milk may be obtained by any arrangement of the various elements of cow's milk based on the percentage of fat or cream, which is the only element possible to estimate accurately in a ready manner outside of a chemist's laboratory, the remaining estimates being made by a mathematical calculation."

Diabetes Mellitus in a Child.—STERN (*Archives of Pediatrics*, June, 1902) reports a case in a child of four. From his study of the subject he concludes:

1. Diabetes occurs but rarely before the fifth year.

2. In a majority of cases the child succumbs within a year from the onset of the disease.

3. The disease may remain latent for a time, and then suddenly take an acute course. It may be ushered in by acute febrile disease.

4. The diet should be a proteid, fat one, the carbohydrates must be diminished, though some clinicians do not favor as strict an anti-diabetic regimen as is recommended in adult life.

Concerning Serum-Exanthems After Antitoxin.—RITTERSHAIN (*Jahrbuch fuer Kinderheilk.*, vol. 55, p. 542, May, 1902) has collected all cases occurring in the Prague Hospital for the years 1898-1901, inclusive. In 1224 injections there were seventy-nine children affected (6.4 per cent.). Comparison with the figures of authors for previous years would show a decrease in the incidence of the eruptions. The eruptions would appear to depend largely upon the kind of serum used, though there would appear to be some relation between the amount of serum used and the appearance of the eruption. In seventy-two per cent of affected cases the eruption was general.

Of the local eruptions, nearly all occurred early and were evanescent.

Usually there was little or no exacerbation of temperature.

For the general eruptions, the third, fourth and sixth day after injection seemed to be the times of predilection, though some did occur much later. The eruption lasted from one to five days with, in some cases, slight febrile reaction.

Concerning the character of the eruption, the author states that all varieties hitherto described were found. These are: (1) simple urticaria; (2) scarlatiniform erythema; (3) measles, like exanthem; (4) polymorphous exanthems.

Author lays special stress on the difficulty of differentiating the scarlatiniform eruptions from true scarlet fever, at times.

Acute Leukemia with Hypertrophy of the Thymus in a Child of Four.—Rocaz (*Rev. Mens. des Maladies de l'Enf.*, March, 1902) reports this unusual case. The child was brought to hospital for a follicular tonsillitis. This cleared in three days, but a fever persisted. The child now developed typhoidal symptoms, with moderate splenic enlargement. On the sixth day a Widal test was positive. Within four days, however, the spleen had increased in size very markedly. A blood examination was now made.

Reds, 1,816,800.

Whites, 244,900.

Differential count showed ninety-six per cent lymphocytes. No myelocytes, no nucleated reds, no eosinophiles.

The spleen continued to increase in size rapidly, and there ensued marked enlargement of all lymphatic glands. Distinct signs of enlargement of the bronchial lymph nodes were present. The fever persisted, diarrhea and general weakness increased; child died on the twenty-fifth day.

At the autopsy the classical picture of leukemia was found, together with marked hypertrophy of the thymus. This organ was four inches in length, and four and four-fifth inches in diameter at its base. No typhoid ulcerations found.

Author calls attention to the onset of the condition with an angina, characteristic of this affection according to Ebstein.

He also notes the association of enlarged thymus; in several cases of leukemia in children with hypertrophy of the thymus, the course of the disease has been exceptionally rapid.

Treatment of Scarlet Fever.—Grosz (*Archiv fuer Kinderheilk.*, vol. 34, p. 52, May, 1902) gives a review of one hundred and sixty-eight cases of scarlet fever treated in hospital during two years. All patients were kept abed for three weeks. If by that time there was no albumin in the urine, and if no other complications had arisen, the patient was allowed to be up.

No antipyretic measures were taken unless the fever was high; in that case cold packs were used systematically. In severe cases, where the heart's action was not good, stimulants were used—camphor, caffeine, sodio-salicylate and alcohol.

Careful examinations of the throat were made routine procedure. In ninety-three cases of severe necrotic scarlatinal angina, the Klebs-Loffler bacillus was found only four times. The clinical picture in these cases was that of diphtheria; under antitoxin they all recovered.

The severe septic scarlatinas were almost uniformly fatal.

For the treatment of scarlatinal angina, ice compresses to the neck, sprayings of the throat with three per cent boric acid or one per cent chlorate of potash were used. Stronger solutions were not used.

With reference to scarlatinal nephritis, the author is of the opinion that it occurs even in patients confined to bed and on strict milk diet. He regards its occurrence as a direct effect of the infection. For its treatment he uses milk diet, and adds digitalis or diuretine pro re nata. Hot baths are also used.

The treatment of the uremic attacks, in addition to the measures mentioned, was symptomatic.

NEUROLOGY.

IN CHARGE OF

SIDNEY I. SCHWAB, M. D.

Pseudo-Meningitis of Psychical Origin.—STARCK (*Deutsche Zeitschr. fuer Nervenheilkunde*, Nos. 5 and 6, 1902).—There have from time to time been reported cases which showed symptoms of meningitis and post-mortem examination gave no evidence that meningitis had existed at all. Three such cases were reported by Schultze in 1887, and he gave to them the name of pseudo-meningitis. Krannals published seven cases of a like nature, and others are mentioned by Kohts, Strumpell, etc. The nature of these symptoms has as yet remained unexplained except on some theory of a toxic process. As opposed to this variety, which frequently ends in death, is another which has been recognized by the French ever since 1870, and is called also pseudo-meningitis, but it differs from the first in that death is not produced and that its etiological factor is without doubt psychical in nature. This latter form is called by the author psychical pseudo-meningitis. There is little doubt that many cases of so-called cured meningitis, where no serious brain lesion is left behind, belong to this class and remain in the literature merely as examples of false diagnosis. Starck, in this very suggestive paper, relates such a case in great detail and makes of this variety of meningitis a definite clinical fact, which in the future should always be considered in all cases of meningitis where there is doubt about the diagnosis, especially so in those cases of meningitis which run their course without a temperature. The case in brief is a follows: To illustrate the difficulty in diagnosis of the case, the diagnoses had been made in various hospitals and clinics as tuberculosis, epidemic meningitis, cerebral tumor, acute hydrocephalus, traumatic tetanus, caries of the spine, and for the latter an operation of laminectomy had been done. A merchant, thirty years old, came into the hospital with a history of headache and vertigo which had lasted eight days. There was also pain in the back, vomiting, chills, contraction of the muscles of the neck. Physical examination showed the patient to be immovable in bed, passive motion of the slightest extent causing great pain. Every few minutes there were tetanus-like convulsions accompanied by cries of pain. The eyes were closed, but there were no eye-muscle paralyses; the pupils reacted to light. All reflexes, superficial and deep, were greatly increased; there was a patellar clonus and a dermographia of marked degree. Some trismus. Pulse regular, but no fever. A provisional diagnosis of acute meningitis, probably tubercular in origin, was made. In the next few days the convulsions increased in number and in violence, while the patient seemed to sink into a stuporous condition, out of which he could not be aroused. It must be readily admitted that the diagnosis of meningitis seemed to be amply justified. The one suspicious fact was the lack of a rise of temperature. At the suggestion of Erb, the case was again examined with a view of eliminating hysteria or simulation. The patient was hypnotized and under suggestion all the symptoms completely disappeared, the patient walking into the ward, apparently fully recovered. Subsequently the patient was carefully examined for hysterical stigmata, but none were fouud. The record of this same patient, as found in the various hospitals where he had been treated, are noted by the author, and from them he concludes that he had to do with a psychically abnormal individual who at times through deception, and at others by unintentional psychical means, was in a position to imitate an organic disease so perfectly that its true interpretation escaped the diagnostic powers of several eminent internists. It was also ascertained that this patient had been a nurse in a hospital and had seen many cases of meningitis. These had so impressed themselves

upon his mind that a reproduction of them was an easy matter. A careful review of the literature, as well as a thorough discussion of this case, make this paper extremely interesting and suggestive.

The Tube-like (Roehrenfoermige) Field of Vision in Hysteria.—R. GREEF (*Berl. Klin. Woch.*, No. 21, 1902).—The central limitation of the visual field in hysteria is one of its most reliable diagnostic signs. Greef describes the field of vision in a case of hysteria in a young child and compares it to the field of vision that would be present when one looks through a hollow tube. This is a very apt comparison and describes better than words can the peculiar appearance of this hysterical symptom. He mentions some of the peculiarities of this form of visual defect and notes that in no other condition is a similar phenomenon observed, so that in the presence of this the diagnosis of hysteria is justified. The acuity of vision in the case quoted by Greef was almost normal, in spite of the marked concentric narrowing of the field. This in itself is pathognomonic of hysteria, because there is no known eye condition which would produce such an intense limitation of the field of vision with a normal ophthalmoscopic finding. A second interesting peculiarity consists in the fact that when the examining distance is increased the patient's field of vision does not increase in proportion to the angle thus formed, but remains contracted as before. This fact might be of very great importance where there was a question of simulation. In this case, also, a definite venous and arterial pulse could be observed in the papilla. This is probably due to the abnormal irritation of the whole arterial system, as no vascular disease was found.

Acute Ascending Paralysis in Basedow's Disease.—M. ROSENFELD (*Berl. Klin. Woch.*, June 9, 1902).—Charcot was the first to call attention to the paralytic symptoms found at times in this disease. They consisted chiefly in weakness and giving way of the legs, a phenomenon which is sometimes found in tabes. This condition can become so exaggerated that total paraplegia results. No sensory or bladder disturbances accompany it. In all about forty examples have been observed and recorded. This is a description of such a condition in a young man, nineteen years old, in whom evidences of Basedow's disease had existed for one year. After a prodromal stage of three days, during which he complained of pain in the back and weakness in the legs, a paralysis of the right extremity took place with complete loss of the knee-jerk; this developed with symptoms of collapse. The other leg, the muscles of the trunk, the arm and neck muscles were in turn affected. Sensation was not disturbed. The diaphragm was not affected. After twenty hours the paralysis began to disappear, leaving behind great muscular weakness. There was no evidence of hysteria. The same process repeated itself twice within a few days, but not so marked as the first time. After this the symptoms of Basedow's disease became more pronounced: tachycardia, acute exophthalmos, acute thyroid enlargement, sweating, emaciation and delirium. The etiology of this phenomenon is without doubt toxic in nature, and attention is called to the fact that Lemke believes that the toxic substance of the thyroid gland must be considered as a muscle poison.

A Parasite Found in the Blood of Epileptics.—M. BRA (*Revue Neurologique*, May 30, 1902).—This is a further communication concerning the presence of a parasite found in the blood of epileptics by Bra, communicated to the Academy of Science of Paris, January, 1902. Blood examined in the interval between the attacks has always been found to be negative. It is present just preceding an attack and during it. The parasite is a diplococcus. It was isolated seventy times in one hundred. It was also possible to cultivate it on various media and to inject it into the blood of rabbits, whereupon convulsions resulted. The

name of neurococcus is given to it by the author. According to him, this is the probable causative agent of epilepsy, and forms a strong proof of the toxic origin of this disease, a theory that Pierre Marie has held on theoretical grounds for fifteen years.

GENITO-URINARY SURGERY.

IN CHARGE OF

H. McC. JOHNSON, M. D.

The Surgical Treatment of Bright's Disease.—GUITERAS (*N. Y. Med. Jour.*, May 17, 1902).—The literature of the subject from Harrison's cases of improvement in albuminuria from nephrotomy, published in 1896, to Edebohls' recent articles is considered; and the conclusion is drawn that to Edebohls is due the credit of having first performed an operation upon the kidney for the sole purpose of curing chronic Bright's disease. The author has begun collecting data with a view of establishing what proportion of cases of Bright's disease are unilateral. Edebohls suggests that the improvement in the kidney after the surgical intervention is due to the growth of new blood vessels connecting the kidney with the surrounding tissues, and thus an improved blood supply. Guiteras has begun to work out the experimental side of this question.

The author reports three personal cases of surgical intervention. The first was in a man seventy-nine years old with chronic nephritis and prostatic hypertrophy. Both kidneys were operated upon. One month after the operation the patient's urine showed improvement, and even his prostatic symptoms had all disappeared. The second was in a woman thirty-five years old with nephritis in a movable kidney. The operation was performed but two weeks previously, and while she was progressing favorably, it was too early for deductions. The third case was one of edema, with many casts and much albumen in the urine. Chloroform was used as an anesthetic, and just as the first cut was made, the patient's heart became so weak that the operation was suspended, and even then there was great difficulty in reviving the patient.

The author concludes:

1. That nephropexy is always a beneficial procedure in a movable kidney of a patient suffering from chronic nephritis.

2. That nephrotomy has proved a valuable operation in unilateral chronic nephritis associated with hematuria and nephralgia.

3. That the value of a complete decapsulation of the kidney as a therapeutic measure in chronic Bright's disease has not as yet been determined.

Grippal Hemorrhagic Cystitis.—BRETON (*Gazette des Hopitaux*, May 13, 1902).—Three cases are reported. The common symptoms of constitutional grippe, after having lasted four or five days and apparently letting up, were followed suddenly by symptoms of cystitis and hematuria. The blood was from the bladder. There were no kidney symptoms. With rest in bed and the ordinary treatment of cystitis the hematuria ceased in from three to nine days. For a few days subsequently the urine contained muco-pus, gradually becoming normal.

A New Substitute for Silver Nitrate.—BARNES and HILLE (*Med. Rec.*, May 24, 1902).—The new combination, *silver vitelline*, is unique in that it contains thirty per cent. of silver, twice the amount of any proteid silver heretofore produced, and is extremely soluble. From experiments it is evident that this salt will exert the antiseptic effects of silver in the deep submucous structures. In

sixty-four out of sixty-six cases of acute gonorrhea in which a one-per cent. solution was used, the unpleasant symptoms were done away with entirely, the amount of discharge was markedly diminished from the start, gonococci were greatly reduced in numbers, and the course of the disease shortened. Solutions of the salt are of decided benefit in deep urethral inflammations and cystitis, even a five per cent. solution producing no irritation.

Albumen in the Urine—A New Way of Applying Nitric Acid and Other Reagents.—BOSTON (*N. Y. Med. Jour.*, May 24, 1902).—The method is as follows:

(1) A pipette is filled for a distance of from one inch to one and a half inches with the urine to be tested. Then this pipette is either carried under a stream of water, and then dried by a towel, or all urine is removed from its surface by a damp towel.

(2) This pipette, with its contained urine, is placed near the bottom of a bottle containing pure nitric acid, when the pressure of the index-finger is lessened, and the acid allowed to flow gradually up into the pipette.

(3) When the pipette is seen to contain about the same amount of the acid and of the urine, the finger is again pressed firmly and the pipette removed from the bottle, and held towards the light, and if albumen is present, a distinct white cloud in the form of a ring appears at the zone of junction of the urine and the acid. If heat is desired, the nitric acid may be heated in a test tube before using. The author finds the nitric acid contact test for albumen (the acid being used pure or as in Robert's nitric magnesium solution) the most satisfactory of all

---

Eight Cases of Tumor of the Testicle.—SCUDDER (*J. Cutan. and Genito-Urin. Diseases*, June, 1902).—The cases were operated upon at the Massachusetts General Hospital by different surgeons. The operations, microscopic diagnosis, and result follow:

1. Orchidectomy. Myxosarcoma. Five years afterwards the man is well and in good health.
2. Orchidectomy. Myxosarcoma. Five and a half years afterwards the patient is well and strong.
3. Orchidectomy. Round-celled Sarcoma. Three years afterwards the man is well and in excellent health.
4. Orchidectomy. Round-celled Sarcoma. Two and a quarter years afterwards the man is well and in good health.
5. Patient had undescended testis. Recent tumor near inguinal canal. Tumor removed, but was adherent posteriorly. Round-celled Sarcoma. Patient died seven months later. The spinal column became involved in a similar growth.
6. Orchidectomy. Adeno-carcinoma. Two years afterwards the man is well and in good health.
7. Orchidectomy. Cysto-sarcoma. One year and three months later the man died. New growths are over the body and in spleen and liver.
8. Orchidectomy. Teratoma. Six months afterwards the patient died.

The Surgical Treatment of Prostatic Hypertrophy.—CHETWOOD (*N. Y. Med. Jour.*, May 31, 1902).—After discussing, when to operate, the choice of operation, and the extent of the operation, and considering the literature, especially of the last year, the author proceeds to explain his method of operating and his galvano-cautery incisor. He first makes a perineal incision into the urethra, then introduces his finger into the bladder for diagnostic purposes. His galvano-cautery incisor is now introduced, and incisions into the prostate made as may seem required. The incisor is very much on the order of Young's modified Freudenberg-Bottini instrument. Seven cases of operation with favorable re-

sults are reported. The author believes that in the large majority of cases the requirements of any operation upon the prostate consist in the removal of the obstructing area and depressing the bladder opening into the prostate, so that the *bas fond* may be properly drained. In many cases the obstructing area of the hypertrophied gland can be satisfactorily reached and effectually removed through a perineal opening by means of galvano-caustic incisions.

The Use of the Cautery of the Prostate Through a Perineal Opening; New Method.—Wishard (*J. Cutan. and Genito-Urin. Dis.*, June, 1902).—The perineum is opened under local anesthesia, and the prostate cauterized by means of Wishard's instrument, which is quite elaborate, admitting of the work being done under the direct inspection of the eye in a bladder distended with air. Four cases with favorable results are reported.

DERMATOLOGY AND SYPHILIS.

IN CHARGE OF

MARTIN F. ENGMAN, M. D.

Parapsoriasis.—L. Brocq (*Annales de Dermatologie et de Syphilographie*, May, 1902).—Parapsoriasis is a word applied by Brocq to a group of affections which are known under various names. In this essay he has gone carefully over the German, English, American and French literature, has taken these various rare conditions, and has placed them in this group; by the word "parapsoriasis" he means to designate a group of rare dermatoses which seem to make a passage, as it were, between psoriasis, the seborrheides, psoriasiformis and pityriasiformis on the one hand, and lichen planus on the other. These conditions have been described by Unna under the name of parakeratosis variegata; by Jadassohn under the name of exanthemd psoriasiforme et lichenoide and dermatite psoriasiforme nodulaire; by Juliusberg, pityriasis lichenoide chronique; and by Brocq himself, erythrodermies pityriasique en plaques disseminees; by Radcliffe Crocker, lichen variegatus. These dermatoses seem to gradually shade into one another and make a chain leading from lichen to psoriasis. Their general characteristics are long duration of the process, little change in the general health, the absence of pruritis, the superficiality of the processes, constituted by a variable redness of the skin, a pityriasic desquamation of the epidermis, and their extraordinary resistance to medication.

Histologically they are characterized by an infiltration of round cells, the papillary vessels are dilated; there is a superficial edema in the derma and epidermis, the processes are flattened; an intercellular edema, especially is this marked in the granular layer. The germinal layer is almost completely absent. The author divides parapsoriasis into three forms: 1. Parapsoriasis en gouttes, which consists of small macules or squamous papules, isolated, disseminated and without infiltration, resembling a psoriasis en gouttes. 2. Parapsoriasis lichenoide, which is composed of small brilliant pseudo-papules, are superficial, and form by uniting into plaques and patches, bizarre figures which are characteristic, described by Unna and Crocker. This group more readily resembles the lichens. 3. Parapsoriasis en plaques, which is closely bordering upon psoriasis and the seborrheides. This consists of reddened, squamous, circumscribed plaques of 2 to 6 cm. in diameter, disseminated over the integument. Brocq thinks he sees a distinct homogeneity in all of these groups, and it is fortunate if this proves correct, as it brings together into one class several conditions about which there

lately has been a great deal of discussion, especially in America, England and France.

Researches Upon Malignant and Grave Syphilis.—LOCHTE (*Monatschrift f. Prakt. Dermatologie*, 1901, pp. 485, 537 and 589; *Annales de Dermatologie et de Syph.*, May, 1902).—Lochte affirms that malignant syphilis is characterized by the following symptoms: Appearance of precocious ulcerations upon the body, diminution of physical forces, run-down appearance, diminution of the appetite, insomnia, perhaps continued fever, inefficiency of mercurial treatment. In the last five years the author has found, out of 3,270 cases of syphilis in men, 17 of the malignant type, but not a case in women. The primary lesions, or first eruption in cases of malignant syphilis, do not often present a grave character, but most frequently seen in the tertiary, when iodides are most efficacious. Alcoholism, advanced age, poverty and misery are aggravating causes. The chancre has a tendency to phagadena, the syphilides are of malignant character, often pustular, hemorrhagic with a tendency to recur.

Baldness: Its Causes and Treatment.—S. JESSNER, M. D. (*Merck's Archives*, June, 1902).—Jessner divides baldness into five varieties, namely: First, Alopecia adnata, senilis and prematura; second, Alopecia seborrheica; third, Alopecia mycotica; fifth, Alopecia symptomatica.

The first variety is congenital baldness; the hair may or may not make its appearance later in life.

The alopecia senilis is a physiological process, no pathological process being present, but in premature alopecia care must be taken in the diagnosis, as seborrhea may be present.

In the second variety, seborrheic alopecia, it is most important to detect a beginning of the process or a mild seborrhea. He quotes Pohl-Pincus, who gives the following directions: Falling of hair is preceeded by diminished growth of the hair in length. The fact may be ascertained in women, in case they do not burn the ends of the hair, by examining every day the hair coming away in combing. If the number of removed hairs which are less than six inches long constitutes more than one-fourth part of all the hair coming away with the comb, it is a sign that a pathological process is taking place in the scalp. In men the method is simpler: we only have to look for the cut hairs in the daily waste, and if they are numerous, the hair is "falling," since normally the newly growing hairs remain on the head up to time of "shearing."

The prognosis of chronic seborrhea is not so hopeless if proper treatment is instituted in time. The treatment of seborrheal alopecia consists in thorough washings of the head with soap and hot water, supplemented in severer cases with the application of antiseborrheal ointments or lotions. Advanced alopecia is treated similarly to alopecia areata.

The secret of success lies in patient and persistent treatment. No cure must be expected in the course of a few weeks' time. Months will elapse before treatment can be abandoned, and even afterwards shampooing at regular intervals will be necessary if the seborrhea is to be held in check.

The third variety includes alopecia areata, for which he recommends the usual line of treatment, especially chrysarobin and the faradic brush.

In the fourth is included the known parasitic alopecias, and the fifth is the alopecia which is the result of external or internal diseases, as syphilis, leprosy, acute infections, etc.

LARYNGOLOGY AND OTOLOGY.

IN CHARGE OF

WILLIAM E. SAUER, M. D.

On Influenza-Pharyngitis and Laryngitis.—TREITEL (*Archiv fuer Laryngologie und Rhinologie*, Dreizehnter Band, Heft 1).—In most cases of influenza we find catarrhal conditions of the upper air passages. According to the statistics of Curshmann the bronchi and nose are most often affected (eighty-one per cent. of all cases), while angina and laryngitis are not nearly so frequent (five per cent. of all cases). In general, the catarrhal inflammations of influenza do not differ from those following exposure. Influenza anginas can become phlegmonous, and edema of the glottis has also been seen. Kronenberg states that there is a tendency to bleeding. There are, however, two symptoms which are prominent in influenza. They are the severe neuralgia in affections of the nose, especially the pain above the eyes, which is, as a rule, due to empyema of the accessory cavities of the nose, and in the pharynx and larynx the paresis of the muscles. Fraenkel saw paresis eighteen times in thirty-threec ases. He first called attention to the small, superficial ulcerations in the larynx which occur in influenza, and also called attention to the long duration of these cases of laryngitis. Cohn, in the first epidemic of influenza, saw pseudo-membranous exudation on the tonsils, palate, pharynx, tongue and in the larynx. Other observers described an opalescent appearance of the upper surface of the tongue, which they considered pathognomonic. The main characteristic is the opalescence. It is at times spread over the whole tongue; at other times it is only at the base, while the point is covered with round or oval specks. This condition of the tongue is often seen in the beginning of the disease.

The author saw a case of influenza-pharyngitis which was taken for syphilis. On the tonsils, soft palate and posterior wall of the pharynx there were oval, partly confluent, grayish white masses, which were surrounded by a reddened and swollen mucous membrane. The affection was then of four weeks' standing. Fourteen days later small vesicles appeared on the pillars of the fauces, which, after a few days, became ulcers. A similar condition in the nose and larynx could not be found. The treatment consisted in cleansing with indifferent solutions and a diet of non-irritating food and drink. The affection lasted about three months. Bacteriological examinations were made and the influenza bacilli demonstrated.

A case of influenza-laryngitis was also seen by the writer, in which small, oval, grayish white specks, slightly raised but not opalescent, could be seen on the false cords. Some of these specks were removed by means of cotton on a carrier, and a bacteriological examination revealed large numbers of influenza bacilli. In this case the influenza bacilli were taken directly from the larynx. The lungs in this case were normal. The above is the first instance of the influenza bacillus being taken directly from the larynx. Glatzel reports a case in which he demonstrated the influenza bacillus in the sputum.

The Importance of Lumbar Puncture for the Diagnosis of the Intracranial Complications of Otitis.—BRAUNSTEIN (*Archiv fuer Ohrenheilkunde*, vol. liv).—In order to establish an indication for operation by excluding a diffuse purulent meningitis or a contraindication by demonstrating the above condition to be present, lumbar puncture has been done sixty-seven times in forty-eight patients. The puncture is made in adults between the fourth and fifth vertebra, on the lower edge of the fourth, a one-half cm. from the median line. The needle is pushed forward and upward. In children the lower edge of the spinal process

in the middle line of the second, third or fourth lumbar vertebra may be selected. The needles used for adults were hollow, 13 cm. long, and 1.3 mm. thick. For children ordinary hypodermic needles are sufficient. The puncture is made in the lateral position with narcosis, but strict aseptic precautions must be followed, and special care taken not to decrease the pressure too rapidly. The amount of fluid removed varies between 13 and 70 cm. The fluid in inflammation of the cerebrum and spine and their meninges is turbid and even purulent, due to an increase of leucocytes or an admixture of pus corpuscles and bacteria. In tubercular meningitis the fluid may be clear although containing bacilli. In uncomplicated cerebral abscess the cerebro-spinal fluid is clear but increased. Untoward symptoms, as pain, numbness in the lower extremities, occur after punctures. Four punctures were made without obtaining any results. In one the needle was too short, in another without any ascertainable cause, and in the others were due to a gelatinous condition of the spinal column and edema of the white substance, associated with a diffuse purulent meningitis. In two cases irregular pulse and a chill was observed. Two cases died after puncture. Lumbar puncture, as a means of diagnosis, is of extreme importance, but as a therapeutic agent leaves much to be desired.

Ichthargan—Its Use in Nose and Throat Diseases.—Beaman Douglas (*Laryngoscope*, May, 1902).—The author, after considerable experimenting, has found that ichthargan for nose and throat work must be used in preparations from 1–50 to 1–10, but the strength of 1–20 was found best for general use. This produced generally a slight burning and smarting, never enough to amount to pain. It seems to be useful as an anesthetic (this effect is not marked), antiseptic, alterant, antiphlogistic, stimulant, and as a modifier of nasal secretion. Compared with nitrate of silver it may be said to be about one-tenth as irritating, but in strong solutions or as a powder it never cauterizes. It is found most useful in acute catarrhal rhinitis in a four per cent. solution; in cases of hypertrophic rhinitis which are not particularly hyperplastic, and when obstruction results from disturbed circulation. In atrophic rhinitis cases, irrigations with weak solutions, 1–5000, and afterwards applications of 4–10 per cent. solutions in water or glycerine. It is in these cases that it seems to attain its most effective results. The writer has treated at least fifty cases of this kind, and the results with ichthargan have been more satisfactory than with any other form of treatment. In tonsillitis and inflammations of the lingual tonsil, better results are obtained from the other silver salts. Ichthargan is also recommended in diseases of the larynx in from 4–10 per cent. solutions.

A Case of Epilepsy Cured by Operation for Nasal Polypi and Empyema of the Antrum of Highmore.—Grosskopff (*Archiv fuer Laryngologie und Rhinologie*, Dreizehnter Band, Heft 1) reports a case of epilepsy in a youth of twenty, cured by the removal of nasal polypi and the draining of a diseased antrum. The patient had received the bromide treatment and had also undergone a "cure" at a sanitarium without any benefit. He had been having from six to eight epileptic seizures daily and his mental capacity greatly reduced. Careful questioning revealed that he was unable to breathe through the right nostril and only very little through the left. On examination it was found that the right nasal cavity was filled with polypi, between which yellow pus could be seen. The left inferior turbinate was considerably enlarged. The antrum was drained through a socket of the second bicuspid tooth, and later the polypi were removed. While attempting to remove some of the polypi under the middle turbinate the patient was suddenly taken with severe typical epileptic seizure. From that time on (November 18, 1901) he has not had a single attack. The antral suppuration was completely cured in about three months. The enlargement of the left turbinate was reduced by the electro-cautery.

OPHTHALMOLOGY.

IN CHARGE OF

JOHN GREEN, JR., M. D.

Is the Dislocation of the Lens Into the Vitreous Ever Justifiable?—G. F. LUKER (*The Am. Jour. of Ophthal.*, June, 1902).—From one-fourth to one-half per cent. of all patients presenting themselves for operation are not fit subjects for extraction. These include the insane, epileptic, hemophilic, the extremely aged (?), and those with an incurable cough. Ocular conditions contraindicating extraction are: (1) When one eye has been operated by extract, and has been lost by suppuration. (2) Partial posterior dislocation of the lens with tremulous iris. (3) Shrunken and secondary cataracts.

Subsequent complications of depression includes the "rising up" of the cataract, iritis, irido-choroiditis, ciliary neuralgia, secondary cataract and acute glaucoma.

While admitting that the remote results of depression (glaucoma, etc.) may result in the loss of the eye, Luker is inclined to believe that the operation is justifiable in selected cases.

A Note on the Value of the Fluorescein Test.—A. H. BENSON (*Ophthalmic Review*, May, 1902).—Text-books on ophthalmology are practically a unit in asserting that only corneal tissue which has been deprived of its epithelium (ulcers and epithelial abrasions) is stained green by solutions of fluorescein. With a view to ascertaining more precisely the tinctorial reaction of the cornea to fluorescein, Benson instilled the solution in a variety of corneal conditions, and came to the following conclusions: (1) In sloughing corneal ulcers the stain is yellow. (2) Apparently intact epithelium surrounding ulcers is often stained. (3) Occasionally small areas of intact epithelium take a typical (green) stain. These areas do not, as a rule, ulcerate. (4) Epithelium intact, but damaged by caustic alkalis, acids and heat, stains beautifully. (5) The corneal epithelium of freshly enucleated eyes stains typically. (6) Cocainized eyes stain irregularly ("mottled"). The writer has found that cases of interstitial keratitis without complicating corneal ulceration do not stain, and considers the test of value in differential diagnosis between this condition and certain forms of indolent superficial keratitis.

The staining of the corneal endothelium has been demonstrated in enucleated eyes, but the writer has not been able to satisfy himself as to its occurrence in the living eye.

When an ulcer does not stain it is an indication that the base has been covered by a delicate epithelial pellicle. The process of healing may be precisely observed by noting the constantly decreasing area capable of taking the stain.

Contagious Ophthalmia in Industrial, Residential and Public Schools and in Asylums and Hospitals.—R. H. DERBY (*Med. Record*, July 5th, 1902).—In 1886 an examination of the eyes of children in the asylums and residential schools of New York City showed that one out of every four had contagious eye disease. Many asylums admitted children without compelling them to submit to ocular examination. Frequently children with pronounced ophthalmia were permitted to use a lavatory also used by children whose eyes were still unaffected.

Out of 12,684 inmates 3,862 were found to have contagious ophthalmia. In view of these conditions the New York Legislature was prevailed upon to pass an act providing for the isolation of inmates suffering from contagious or infectious disease. The act was passed in 1886 and has therefore been operative about

fifteen years. A comparison of the figures obtained in 1886 and 1902 show a remarkable diminution in the number of cases of contagious sore eyes. In one institution the percentage dropped from 17.7 per cent to 2.5 per cent, in another from 66.5 per cent to 4.4 per cent.

The system in vogue in two of the institutions which show the most striking decrease in the number of cases of ophthalmia includes a careful inspection of the child's eyes on admission and the immediate isolation of all cases of ocular disease. A building has been constructed for purposes of isolation and it is equipped with everything for the maintenance and instruction of the child. Only after complete cure are the children returned to the main pavilion; even then they wash apart from the other children and are subjected to tri-weekly examinations. No basins or bath-tubs are allowed, each child having a separate jet of water and an individual towel. In accordance with the law, the eyelids of each inmate are everted and examined.

An examination of two public schools in New York City revealed the fact that 17.3 per cent of the children had a communicable disease of the eyes, true trachoma largely predominating. No regular inspection of the eyes was practiced, the discovery of any case of sore eyes being, in the absence of obvious inflammatory signs, largely a matter of chance.

The writer advocates rigid and universal inspection, the examination to include eversion of the lids. The fact that trachoma is insidious and often not manifest at all to casual observation is emphasized.

BOOK REVIEWS.

Diseases of the Stomach. Their Special Pathology, Diagnosis, and Treatment, with sections on Anatomy, Physiology, Chemical and Microscopical Examination of Stomach Contents, Dietetics, Surgery of the Stomach, etc. By John C. Hemmeter, M. D. Third enlarged and revised edition. P. Blakiston Son & Co., Philadelphia.

The reception with which this special work has met among students and general practitioners of medicine proves conclusively that in its conception the author has struck a popular chord. Few works on special branches can be adapted and applied to general use as can this volume. It is so complete within itself, so logical in its classification, and so explicit on every point, that one cannot help but feel that he has in the confines of this volume the sum and substance of the useful and practical knowledge of the subject in hand. The illustrations are numerous and instructive, the index full and accessible, and the bibliography following each chapter complete.

The first part is devoted to the anatomy and physiology of the digestive organs, and the methods and technics of diagnosis. In this connection are considered in detail the methods for testing the gastric peristalsis, gastroscopy, the diagnostic significance of fragments of gastric mucosa, as well as all of the more usual aids in diagnosis of diseases of the stomach, The author's originality along these lines render him peculiarly fitted to write such a chapter. He was among the first to recognize the great importance of microscopic examinations of fragments of the mucosa removed by the stomach tube or curette, and has contributed much on this subject that has received universal recognition.

Part two is devoted to the consideration of general therapy and materia medica of stomach diseases. Dietetics receive chief attention here. Some knowledge may be gained of the masterly way in which the subject of treatment is handled, from the statement that of 230 pages, thirty are devoted to medicinal agents. In his consideration of the uses and abuses of natural mineral waters in diseases of the digestive organs, the author says: "With such a wealth of valuable mineral springs in this country, it is difficult to understand the large annual exodus of Americans to foreign water resorts. We fear the fault rests with the American physician, not the American waters."

Part three is devoted to a complete consideration of the special diseases.

Human Embryology and Morphology. By Arthur Keith, M. D., F. R. C. S. (Eng.), Lecturer on Anatomy, London Hospital Medical College, etc., etc. Illustrated. London: Edward Arnold. 1902.

This book is the substance of a course of demonstrations in embryology given by the author in the London Hospital. The extent to which each subject is dealt with is determined by its practical importance, thus clinical utility being the criterion employed. Each chapter is a brief history of the development of a part of the human body. The book is liberally illustrated and in its concise style is thoroughly adapted to the needs of the student.

Diseases of the Anus and Rectum. By D. H. Goodsall, F. R. C. S. (Eng.), Senior Surgeon to St. Mark's Hospital for Fistula and other Diseases of the Rectum, etc., etc., and W. Ernest Miles, F. R. C. S. (Eng.), Surgeon to the Gordon Hospital for Diseases of the Rectum; Assistant Surgeon to the

Cancer Hospital, Brompton, etc., etc. In two parts. Part I. Longmans, Green & Co., London, New York and Bombay. 1900.

As the authors state in the preface, this book is the outcome of their personal experience of the subject, which has extended over periods of thirty years and six years respectively. They convey to the reader the clinical features of the various forms of diseases of the anus and rectum, and set forth only those methods of treatment which they have found in their very extensive experience to be the most successful ones. This first volume contains a consideration of the anatomy of the pelvic floor and deals with the formation of abscesses in the neighborhood of the rectum, the different varieties of fistulæ, hemorrhoids and anal fissure. Ninety-one excellent illustrations, most of them being reproductions of photographs, greatly elucidate the text. The book is a thoroughly modern one andwill be found by student and practitioner to be of the greatest value.

Dermatologische Heilmittel (Pharmacopeea Dermatologia). By Dr. S. Jessner, Koenigsberg, i. P. A. Stuber's Verlag (C. Kabitsch), Wurzburg. 1902. Price, one mark and a half.

This little book of ninety-four pages amounts almost to a work on cutaneous therapy. The newest dermatologic remedies, their preparation, nature and uses, are fully discussed. The author has also given us the result of his practical clinical knowledge of these remedies by adding numerous formulæ to illustrate the mixtures of which they best admit.

As a reference for the specialist as well as the general practitioner this little volume will prove invaluable. Over two hundred subjects are discussed in a most practical and instructive manner in its pages.

The Peritoneum. By Byron Robinson, B. S., M. D., Chicago, Ill. Part I, Histology and Physiology. With 247 illustrations. Chicago: Chicago Medical Book Co. 1899.

Peritonitis is one of the fell destroyers of the race, and he who brings forth means to check its fatal progress will be a benefactor to his fellows. Only a thorough knowledge of the normal functions of the peritoneum, gained by study with the microscope, by the use of reagents and experiments, will enable us to secure methods of combating the invasion of disease into the peritoneum. Everybody who is acquainted with the literature of the last few years will know what the author of this book has done in enriching our knowledge in regard to the histology and physiology of the peritoneum. In many elaborate articles he has brought forth the fruits of his personal labor in experiments and researches conducted during half a dozen years. The present volume compiles the outcome of this immense work. Beginning with a historical sketch the writer deals in the following nine chapters with the histology and physiology of the peritoneum, devoting one chapter for each tissue constituting the peritoneum. The author advances not only his personal opinion but gives everywhere ample credit to the work of others, thus producing a book which must be considered the most complete and most valuable contribution on this subject that has ever appeared. We do not hesitate to predict that the high merits of this book will be recognized and acknowledged not alone in our own country but also abroad.

Genito-Urinary Diseases and Syphilis. For Students and Practitioners. By Henry H. Morton, M. D., Clinical Professor of Genito-Urinary Diseases in the Long Island College Hospital; Genito-Urinary Surgeon to the Long

Island College and Kings County Hospitals and the Polhemus Memorial Clinic, etc. Illustrated with half-tones and full-page color plates. Pages xii–372. Size 9½x7 inches. Price, extra cloth. $3 net, delivered. Philadelphia: F. A. Davis Company, publishers, 1914–16 Cherry street.

This is a work of much merit. The author exhibits a keen knowledge of discrimination: what subjects to elucidate extensively and to what to devote only a few lines. While the conditions treated of embrace all those which the specialist encounters, the book is especially valuable to the student and general practitioner.

In addition to the well-established facts, all the worthy new ideas in the department of medicine are clearly given, and at the same time there is a conciseness that is pleasing.

Among the illustrations, which are good and liberal, may be noted not a few reproductions of photographs which enhance the value of the work.

The Practical Medicine Series of Year-Books. Edited by Gustavus P. Head, M. D. Divided into ten small volumes; published separately at monthly intervals during the year. The volumes before us are as follows:

General Medicine. Edited by Frank Billings, M. D. Includes all the general diseases except those of the alimentary tract and allied organs and the summer diseases. 275 pp. Cloth, $1.50

General Surgery. Edited by John B. Murphy, M. D. 450 pp. Cloth, $2.00.

Diseases of Eye, Ear, Nose and Throat. Edited by Casey A. Wood, M. D., and Albert H. Andrews, M. D. 300 pp. Cloth, $1.50.

Gynecology. Edited by E. C. Dudley, M. D. 175 pp. Cloth, $1.25.

Published by the Year Book Publishers, 40 Dearborn street, Chicago. Subscription price for full set—ten volumes—$7.50.

The object of this series of small volumes is most commendable. The publishers aim to present the advances made in every department of medicine, each special subject being considered in a separate book. The volumes noted above are ably edited and present much valuable matter compiled from authoritative sources.

The Technics of Nephropexy as an Operation per se, and as Modified by Combination with Lumbar Appendicectomy and Lumbar Exploration of the Bile Passage. By George M. Edebohls, M. D., of New York, Surgeon to St. Francis' Hospital; Professor of the Diseases of Women at the New York Post-Graduate Medical School and Hospital. J. B. Lippincott Company, Philadelphia.

This article, in which is reviewed the surgery of the subject, as well as imparted the author's rich experience, appeared as an original article in the *Annals of Surgery* for February, 1902. The author has done 261 nephropexies, and fifty-six times tried to remove the appendix through the same incision, failing four times. His incision is made parallel to the outer border of the erector spinæ; the fatty capsule is in great removed; there are no parenchymatous sutures; the fibrous capsule is used in anchoring the organ; there are no packs or drains. All the details of the operation and after-treatment receive full consideration.

The various arguments for and against the steps which the author uses are fully considered; thus the article, while not containing a great deal which is really new, in being so critical, is certainly of value to one who has this sort of work to perform.

Les Maladies Seborrheiques. By R. Sabourand. Paris: Massau & Cie, 120, Roue St. Germain. 1901.

The works and views of Sabourand are generally known. His published work has been almost entirely upon the sebjects of ringworm, seborrhea, acne and alopecia; with the exception of the first named condition, this volume is almost a compilation of his former essays or articles upon these subjects.

Sabourand's views upon ringworm have been confirmed by various authorities, and his efforts in isolating and describing the different varieties of these fungi stand as a monument to his patience and skill. But as yet the world has not so readily grasped and verified his views upon seborrhea, acne and olopecia. No one as yet has succeeded in so universally finding what he has found; only a few are wandering along in his footsteps, but all of us are eager and ready to adopt his ideas when more proof is forthcoming. The nucleus of his pathology is a small bacillus, an exceedingly small bacillus, next in size to Pfeiffer's influenza bacillus. Abous this bacillus is the book, for to it he attributes acne, alopecia, (both seborrhic and alopecia areata), seborrhic eczema and certain forms of seborrhic dermatitis christened with long adjectives by their various discoverers. This bacillus, according to the author, is found in every seborrhic or oily skin, which furnishes it a media for its growth. Seborrhea is most prevalent at the age of puberty, therefore at that time, so we have acne or follicular infection with the "micro-bacillus." But it is unnecessary to detail his well-known opinions. It requires quite a great deal of faith to accept Sabourand's pathology upon his findings (which no one questions) from the nature of the proof which he brings forward. Here he is vulnerable to criticism in giving such great pathologic importance to an organism so universally found upon the head and face.

If we are not mistaken, several years ago he placed more importance upon this bacillus in causing seborrhic eczema and forms of pityriasis of the scalp than he does at present, criticising Unna and two of the latter's pupils for being too superficial in their work. Then he advocated that the scales did not contain the true pathologic agent, but that it was to be found in the follicle. To-day he gives to the organisms found in the scales the credit of causing pityriasis and mild inflammatory processes, these organisms, the staphylococcus albus and the bottle bacillus being the ones he before discarded. Will he again have to call other organisms to assist in certain of the pathologic processes, which he now attributes solely to the energies of the micro-bacillus.

As Sabourand says, the micro-bacillus paves the way, as it were, and is followed in a jackal-like fashion by various other organisms, giving to acne, for instance, its multiformity. He draws these conclusions from the fact that he finds his bacillus in all such lesions. Unfortunately Schamberg finds bacilli identical with Sabourand's in the normal skin, whether it be oily or dry. However, that fact does not disprove the claims of the author, but it does unfortunately set the skeptical head to bobbing. And when it comes to a question of bacteriology of diseases of the skin, the heads of the skeptical may wag quite exasperatingly. For look at the staphhlococcus with its various nine hundred and ninety-nine varieties (Unna) which *will* bob up serenely as the micrococcus, special impetigo-cocci, *et al.*; and the streptococcus with its chains twisted into knots of contortion. But we must respect these cocci which put their feet into so many unwelcome places, even living upon the normal skin, so we must respect in a like manner the micro-bacillus. For was it not Sabourand who wisely said, some years ago, that the key to derma-pathology was the proper understanding of the role of the strepto- and staphylococci.

Die Krankheiten des Ohres. Designed for the general practitioner. By Dr. Arthur Hartmann. Seventh enlarged edition. H. Kornfeld, Berlin. 1902. G. E. Stechert, New York, Agent. $1.90.

This work has become too well known to the medical world to require words of recommendation. Since the appearance of the first edition it has been recognized by teachers as well as practitioners as almost an ideal work. Previous editions have been translated into the English, French, Italian and Russian languages. Each edition has been revised up-to-date. In order to keep abreast with the marked advancement in otology since the last edition appeared, the author has made numerous alterations and has added new methods of treatment. Among the latter worthy of mention are Liebermann's phosphor—treatment of middle ear sclerosis and the author's treatment of tinnitus with adrenaline.

Three new chapters and five illustrations were also added.

Die Schoenheit des weiblichen Koerpers. Von Dr. C. H. Stratz. Mit 180 theils farbigen Abbildungen im Text, 5 Tafeln in Heliogravure und 1 Tafel in Farbendruck. 12. Auflage. Stuttgart: Verlag von Ferdinand Enke. 1902. Preis: Mk. 12.

Die Rassenschoenheit des Weibes. Von Dr. C. H. Stratz. Mit 233 in den Text gedruckten Abbildungen und 1 Karte in Farbendruck. Zweite Auflage. Stuttgart: Verlag von Ferdinand Enke. 1902. Preis: Mk. 12.80.

Die Frauenkleidung. Von Dr. C. H. Stratz. Mit 102 zum Theile farbigen Abbildungen. Zweite Auflage. Stuttgart: Verlag von Ferdinand Enke. 1902. Preis: Mk. 7.60.

The author of these three volumes is a gynecologist well-known in Europe. His profession, a residence of several years in Java, as a practitioner of medicine, and his extensive travels almost over the entire world, afforded him abundant opportunity for studying the female body.

I.—In the first mentioned volume the author presents his ideas on "the beauty of the female body." By means of five heliogravures and one hundred and eighty half-tones made from photographs, he explains in detail what must be considered faultless beauty for each part of the body. This presentation of the subject is not alone the view of the artist and the esthetic criticist, but also that of the anatomist and physician giving us the philosophy of perfection of the female body, and everywhere showing how certain diseases, abnormalities in the development and unhygienic conditions cause disfigurement, and demonstrating how beauty and symmetry can be preserved. This fully justifies the author in dedicating this book to "mothers, physicians and artists." Mothers will find much good advice as to how to influence a normal development in their children, and to raise beautifully formed daughters.

II.—The ideal of beauty is subjected to manifold variations. A Zulu woman who well conforms with the ideal of beauty of a Zulu negro must not necessarily be pleasing to our eyes. Stratz in this volume puts himself to the difficult task of criticising the women of all races of the world according to the laws of beauty, laid down in general. And he solves this task in an admirable way Two hundred and thirty-three photographs elucidate the interesting and judicious explanations of the writer. The bodies of "beauties" representing almost all races of the world are subjected to artistic criticism, and, we may say, many of them pass this examination with honor.

III.—It is self-evident that a man of such an immense experience as regards the female body could not refrain from a study of the clothing of the female. To this subject the third book is devoted. Corsets, tight clothing, shoes, high

heels, garters, etc., are dealt with as regards their effect upon the human body, and sharp criticisms are not withheld where extravagancies of mode produce detriment to the normal forms of the body.

These three books are written in an exceedingly pleasing and engaging style and lavishly illustrated with half-tones and heliogravures, which represent the highest standard of German printing art. The success of these books in Europe was unrivaled, the first mentioned volume seeing twelve editions within three years. They were accepted with real enthusiasm by physicians, artists and all those who have interest in esthetics. We cannot doubt that they will meet with the same success among educated Americans who enjoy reading German.

A Manual of Clinical Diagnosis by Means of Microscopical and Chemical Methods. By Charles E. Simon, M. D. Fourth edition, thoroughly revised. Illustrated with 139 engravings and 19 plates in colors. Lea Brothers & Co., Philadelphia and New York. 1902.

In the author's preface to the first edition of this work, he greatly lamented the lack of interest manifested by physicians in the subject with which the volume deals—clinical chemistry and microscopy; in the preface to this the fourth edition he expresses his gratification at the great rapidity with which the subject has become widely appreciated. There is no doubt but that the work in hand has done much to increase the interest in this country in laboratory methods of diagnosis. It is indeed surprising that the great importance of such methods has been overlooked by many. There can be no excuse, however, for further neglect. Methods have been simplified and classified so completely that not even a profound knowledge of chemistry is necessary to their employment. Time and inclination are the chief requisites. As to the former, the author properly suggests that a physician who is overwhelmed with work to such an extent that he cannot find time to make use of these aids in diagnosis, is in a position to employ a laboratory assistant. This work deals exhaustively with the blood, the secretions of the mouth, the gastric contents, feces, sputum, nasal secretions, the urine, transudates and exudates, etc. The chapters on the blood and urine are especially complete. In this edition literature references have been added which facilitate a more extended study of the subject in hand.

Short Talks with Young Mothers on the Management of Infants and Young Children. By Charles Gilmore Kerley, M. D. G. P. Putnam's Sons, New York, London. 1901.

In his preface the author states that the aim of this little volume is to help the young mother to a closer acquaintance with and a more intelligent appreciation of the nature and demands of the little life entrusted to her care. He claims that he intentionally avoids any suggestions relating to medical treatment, most probably because he realizes what mishief is often done by the indiscriminate use of "house remedies" and "medical advice" given in so many little books written for the benefit of the "young mothers." We gladly acknowledge that the author fulfills the first part of his aim in a very satisfactory way. Paragraphs like those on maternal nursing, habits, children parties, etc., offer both interesting and instructive reading. We feel, however, that the author transgresses the limits, set himself, if he—*e. g.*, speaking of convulsions—says (page 20): "No solid food or milk should be given for twenty-four hours" or "during the next few days there should be no excitement," etc. Is the author not afraid that the young mother will be induced by such advice to try to get along "during the next few days" without a doctor? And again, what real benefit shall the young mother obtain by being told by the author that there are four types of

grippe, and that he saw twenty cases of the third type during the winter of 1890–91? This book is in its present form recommendable, but we think it could, in its second edition, be considerably improved, if a part of the medical science taught in it would be eliminated.

THE NEUROSES OF THE GENITO-URINARY SYSTEM IN THE MALE, WITH STERILITY AND IMPOTENCE. By DR. R. ULTZMANN, Professor of Genito-Urinary Diseases in the University of Vienna. Second edition. Revised, with notes and a supplementary article on Nervous Impotence, by the translator, GARDNER W. ALLEN, M. D., Surgeon in the Genito-Urinary Department of the Boston Dispensary; Instructor in Genito-Urinary Surgery in Tuft's Medical College. Illustrated. Pages 198. 12mo. Price, extra cloth, $1.00, net, delivered. Philadelphia: F. A. Davis Company, Publishers, 1914–16 Cherry street.

It is unfortunate that the text of this book could not have been revised by the author, as there is much material in it of great value and much so antiquated that it is of little value, except as a matter of history. The notes of the translator somewhat make up for this deficiency, but it is a little of an imposition to have to wade through matter that is all put aside almost with one stroke of the pen by the translator. This is especially noticeable in what the author and translator have to say about catheterization in distended bladders.

However, while some of the material may be rather old and out of date, the book will well repay one for reading, at least for sound pathological teaching and a knowledge of treatment now largely superseded, together with that of the most recent date.

DIE KRANKHEITEN DER VERDAUUNGSORGANE IM KINDESALTER. Fuer Aerzte und Studierende. By E. SCHREIBER. Wurzburg: A. Stuber's Verlag. 1902. Pages 286. G. E. Stechert, New York, Agent.

This book gives in concise form a compendium of present knowledge in the important field of diseases of the gastro-intestinal tract in children. Particular attention is paid to the discussion of the underlying pathology and morbid anatomy of the different diseases, a feature at once interesting and valuable.

To the American, German methods of therapy seem at times rather strange. Thus the methods of treatment of the acute gastro-enteric disorders recommended by Schreiber are rather different from our methods. Aside from this, however, the book is really valuable for the clearness and the fairness of its views. In the discussion of appendicitis, for instance, the medicinal treatment is advocated for many cases, and the rules for surgical interference are formulated fairly, wisely and judiciously. The author's style is clear and incisive and the general arrangement of the subjects treated excellent.

AN EXPERIMENTAL AND CLINICAL RESEARCH INTO CERTAIN PROBLEMS RELATING TO SURGICAL OPERATIONS. An essay awarded the Alvarenga Prize for 1891 by the College of Physicians of Philadelphia. By GEORGE M. CRILE, A. M., M. D., Ph. D., Professor of Clinical Surgery, Medical Department Western Reserve University; Surgeon to St. Alexis Hospital; Associate Surgeon to Lakeside Hospital, Cleveland. Philadelphia: J. B. Lippincott Company. 1901. Price, $1.00, net.

Four interesting problems have been studied by the author, and they are: The effect of severing and irritating the vagi, the effect of the intravenous injection of saline solution, the physiological action of cocain and eucain, and the ef-

fect of temporary closure of the carotid arteries. By stimulation of the vagi, as well as section of them, more pronounced respiratory than circulatory symptoms were produced. They are of great interest, but cannot be reproduced here in full. When too much saline was injected into the veins the dogs died from asphyxia, but the blood-pressure and the pulse-rate was less influenced than one might have supposed. The data presented upon this subject are of especial interest, the author showing why it is that extreme shock makes the use of saline ineffectual. After eighty-nine experiments with eucain and cocain upon animals the author gives some interesting conclusions, one of which is of decided interest to the surgeon, since it is of great practical benefit, viz., that these drugs by blocking the vagus nerve prevent the cardiac inhibition which results from its stimulation during surgical operations, a thing which cannot always be avoided. The carotids can be clamped for forty-eight hours without injury if properly done. The knowledge experimentally gained has been applied several times by the author, in that he has removed tumors from the head and face with temporary closure of both vessels.

THE DIAGNOSIS OF SURGICAL DISEASES. By Dr. E. ALBERT, Late Director and Professor of the first Surgical Clinic at the University of Vienna. Authorized translation from the eighth enlarged and revised edition by ROBERT T. FRANK, A. M., M. D. With fifty-three illustrations. New York: D. Appleton & Company. 1902.

To one who has read this work in the original there occurs a feeling of decided satisfaction that American students and practitioners are to be presented with it in such a form that they can read and appreciate it. Albert was a poet, a man of distinctive literary genius, and the most graceful lecturer of his time on surgical subjects. When others talked to empty or half-filled benches the gifted Albert's clinic was crowded; certainly the best proof of the fact that the man was interesting. But this was not all. He was even more famous for the amount of instruction conveyed in his lectures. He used his clinical material first of all for the demonstration of diagnostic methods, and then, having performed his first duty to the student, proceeded to the operation as a matter of secondary import. On the other hand, his contemporary worker, Billroth, the splendid operator, as the students used to say, was wont to spend less time in preliminaries and to say: "Well, we will soon know exactly what it is when the belly is open." Naturally, then, Albert of the two famous surgeons was the one better fitted by nature and habit to write a text-book on the diagnosis of surgical diseases. Indeed, a perusal will bear me out in this conclusion as to contents and literary merit. Of course, the author's exact style cannot be reproduced in a translation, but I think I am safe in saying that the book has lost as little by the procedure as is usual in such cases.

TRAITE DE CHIRURGIE D'URGENCE. Par FELIX LEJARS, Professuer agrege a la Faculte de Medecine de Paris; Chirurgien de l'Hopitaux Tenen; Member de la Societe de Chirurgie. Troisieme edition. Revue et augmentee. 751 figures dont 351 dessinees d'apree Nature par le Dr. E. Daleine et 172 photographies originales. Paris: Masson et Cie., Editeures, Libraries de l'Academie de Medecine, 120 Boulevard Saint-Germain. 1901.

This large work (1045 pages) occupies a position in French surgical literature which has no exact parallel in our own language. It is devoted to an exhaustive consideration of emergency surgery in all of its minute details, and the demand which it has awakened is best illustrated by the fact that it appears in its third edition within three years.

The first chapter is devoted to general considerations in so far as they relate to emergency surgery. There are duly considered the surgeon's outfit, anesthesia, hemostasis and the use of saline solution. The remainder of the work is divided up among the various regions, with one lengthy chapter upon the different forms of hernia which may become strangulated and thus become the subject of emergency surgery. In line with the most modern surgical advances, the author devotes considerable space to the surgical treatment of wounds of the heart and pericardium. The indications for operative intervention are clearly detailed, but can, to save space, hardly be reproduced here. The choice of methods as well as the most appropriate incisions are all profusely illustrated. The admirable flap as made by Fontan is the one here advised (with its base to the side, that circulation may not be interfered with). Most interesting are the chapters on hemorrhage from the stomach and duodenum. A loss of blood in quantity between one-half and one liter indicates the opening of a large vessel, and the spontaneous closure of the same is hardly to be hoped for; and while it is well to attempt to save the patient by medical means, still in such a case the surgeon must be ready to operate upon a recurrence of the bleeding. Thus are crystallized the salient points in all the various kinds of emergency cases. Indeed, the book is made up of concrete statements calculated to guide the surgeon in just those instances when he finds little that is of value in the general works or when he cannot risk the patient's life, while he delays for hours in rummaging through a library, even if he be so fortunate as to possess one. The general remarks on the laparotomy for intestinal obstruction take the most comprehensive grasp of that subject that has come to the reviewer's notice in French, German or English. One of the points here urged, and one by the way which is generally neglected, is stomach lavage before operation on a patient affected with fecal vomiting. This simple procedure may save the individual from having his respiratory apparatus flooded by the vomitus while under the anesthetic. After the belly is open the operator may follow either one of two plans in case the obstruction does not present itself at once: He may grasp the cecum and work from it along the gut to the point of obstruction, or he may make a very long incision and eviscerate the entire contents. This latter method, while indispensable in some instances and good in all, must always be attended by a pronounced degree of shock. One of the chief emergency considerations in modern surgery is that of appendicitis, and to this subject the author does full justice. He takes the eminently sensible and moderate view that all of these cases must be operated upon, many in the acute attack it is true, but as many as possible during the free interval. Pencil as well as pen have been called into use to make clear the various technical points here involved. The book occupies a place by itself in surgical literature, and this being true, it belongs to the outfit of every well-equipped surgeon.

PROGRESSIVE MEDICINE, Vol. II., JUNE, 1902. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART AMORY HARE, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 440 pages, 28 illustrations. Per volume, $2.50, by express prepaid to any address. Per annum, in four cloth-bound volumes, $10.00. Lea Brothers & Co., Publishers, Philadelphia and New York.

The June issue of Progreseive Medicine contains a series of valuable contributions on subjects of great importance to the general practitioner. Surgery of the abdomen, including hernia, is considered by Wm. B. Coley; Dr. John G. Clark gives the report on progress in gynecology, while Dr. Alfred Stengel's ar-

ticle is devoted to the diseases of the blood and ductless glands and the hemorrhagic and metabolic diseases. The volume is concluded with a contribution of Dr. Edward Jackson on ophthalmology. As usually, illustrations are employed liberally wherever they can aid in the elucidation of the text.

Announcement is made of REGIONAL MINOR SURGERY, by GEO. G. VAN SCHAICK, M. D., attending surgeon to the French Hospital and to the St. Vincent de Paul Orphan Asylum, New York. Containing about two hundred pages and profusely illustrated with drawings especially made for this book It is bound in cloth and white leaf, printed on heavy book paper and devoted to the treatment of the surgical conditions that are met with in the daily practice of every physician. This book is thoroughly practical and presents the subject in an interesting and instructive manner. (Price, $1.50.) Published by International Journal of Surgery Co., 100 William street, New York.

INTERSTATE MEDICAL JOURNAL

PUBLISHED ON THE FIFTEENTH DAY OF EVERY MONTH BY THE
INTERSTATE MEDICAL JOURNAL COMPANY

W. B. OUTTEN, M. D., President. O. F. BALL, M. D., Secretary

SUBSCRIPTION, $2.00. FOREIGN SUBSCRIPTION, $2.50. SINGLE COPY, 25c.

Subscriptions may begin at any time. Volumes end with issues of December.

Original Articles.—Articles are accepted for publication with the understanding that they are contributed solely to this journal. French and German articles will be received and translated free of charge, if found desirable for publication.

Reprints (200) of original articles will be furnished gratis to authors making the request, which must accompany the manuscript. Covers to these, and extra reprints, will be furnished at net cost.

Illustrations, such as plates, half-tones and zinc etchings, as in the judgment of the editors are necessary to illustrate articles, will be furnished when photographs or drawings are supplied by the author.

Rejected Manuscripts will be returned, if stamps be sent for this purpose.

Advertisements.—Advertising forms go to press on the 5th of the month, the JOURNAL being mailed on the 15th. Time should be allowed for composition of advertisements and for the sending and return of proofs. Advertising rates will be sent on application.

Change of Address.—In ordering a change of address, it is important that both the old and new addresses be given.

Discontinuances.—The INTERSTATE MEDICAL JOURNAL is not discontinued at expiration of subscription, but is sent until an explicit order to stop is received or a notice sent by us. A large majority of our subscribers prefer not to have subscriptions interrupted and files broken in case they fail to remit before expiration. It is therefore assumed, unless notice to discontinue is received and the amount of back subscription paid to date, that the subscriber wishes no interruption in his series. Journals returned are not notice of discontinuance.

Remittances should be made by check, draft, registered letter, money or express order. Address all communications to INTERSTATE MEDICAL JOURNAL, Commercial Building, St. Louis, Mo.